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CO., CORNHILL.

MEDICAL GUIDE

FOR

MOTHERS,

IN

PREGNANCY, ACCOUCHEMENT, SUCKLING,

WEANING, &c. &c.

AND IN MOST OF THE IMPORTANT

DISEASES OF CHILDREN.

BY

J. R. HANCORN,

MEMBER OF THE ROYAL COLLEGE OF SURGEONS,
&c. &c.

AUTHOR OF PAPERS
On the Physiology of the Liver; on a new mode of treating the Asiatic Cholera; on Rupture of the Uterus, &c. &c.

SECOND EDITION.

LONDON:
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ADVERTISEMENT

TO

THE SECOND EDITION.

THE demand for another edition of this little work within so short a period from its first publication, affords me the gratifying assurance that my humble effort has been favourably received by the interesting portion of the community for whose welfare it was compiled. Indeed, its success would seem to justify the remark which I ventured to prefix to the first edition in apology for adding to the numerous treatises on the subject: viz. "It may indeed, in *some* respects, be rendered unnecessary by existing works, I am sure that it is not superseded in *all*. Be this, however, as it may,

there is room for more than one work on a subject of such universal interest."

Its circulation in distant parts of the globe, as well as at home, has induced me to venture with renewed confidence upon the issue of a second edition. I have endeavoured to increase its utility by the insertion of a few additional sections concerning the treatment of several important diseases incident to childhood; and have omitted, in deference to the opinions of the public press, the appendix, treating of consumption, &c. as not being in harmony with the proper scope of the work.

Grateful for the encouragement bestowed on my past efforts, I now again offer my little volume to the candid judgment of the public.

J. R. HANCORN, M.R.C.S.

34, *High Street, Shoreditch.*

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MATERNAL DUTIES,

&c. &c.

GENERAL IDEA OF WOMAN.

WOMAN, in the first years of her life, does not appear at first sight to differ from man. She has almost the same air, the same delicacy of organs, the same gait, the same tone of voice; but, as she advances towards puberty, woman seems to become less removed from her original delicate and tender constitution. She always preserves something of the temperament peculiar to infancy; the development which age produces in all the parts of her body does not give it the same degree of consistence as they acquire in man.

Woman arrives at puberty before man. Although the time for that revolution may be designated as from the age of thirteen to four-

teen for the female, and from fifteen to sixteen for the male, that law is not general: puberty is subject to great variations, being more or less precocious according to the temperature of the climate, and the manners of the inhabitants.

The influence of puberty is not confined to the physical constitution; it works a manifest revolution in the moral. Woman feels much sooner than man this new influence; she is astonished at being endowed with new attributes, and this change produces modesty; those torments which, in a young man, are so impetuous and so difficult to be restrained, without being so violent in appearance, nevertheless produce effects as dangerous in the heart of the young girl.

Considered anatomically, the female, besides the sexual and mammary organs, besides the catamenial discharge, is distinguished from man by a lower stature, a smaller head, a shorter face, a longer neck, the chest prominent in front and compressed at the sides, the hips more extended and the members shorter. She has the osseous system whiter, less voluminous, than that of man; her clavicle is longer, and less

curved; her sternum more forward, and shorter; her coxal bones touch one another in a smaller number of points; her sacrum shorter, broader, less curved at bottom, and thrown more backwards; the trochanters and upper part of the thigh bones more distant from one another; finally, the capacity of the pelvis more extensive.

The muscular system is less developed, more supple, and weaker, than in man. The nervous system predominates over the muscular in woman; it is more susceptible, more movable. The blood vessels are more numerous, more flexible, and the blood preserves longer the characteristics of that of youth. The laminous tissue is more abundant, less close; its expansion, and the softness of the fat which renders supple the organs of woman, contribute to the pleasing expression of her physiognomy, to the hemispherical form and marked projection of her bosom, which form one of her principal ornaments, and of which artists represent the agreeable curves with so many graces; it gives also to those limbs that polished surface, that roundness, and that softness which those of men ought not to have; the lymphatic vessels are

more numerous, and less furnished with valves in woman; the heart is less expanded, the lungs smaller and more dilatable; finally, the cutaneous covering is of a finer and more delicate texture, and its whiteness and softness impress our eyes agreeably.

The organs of sense, in woman, have an activity which depends on the greater susceptibility of her nervous system; she has an eye more lively and more penetrating, a touch more delicate, finer hearing and smell, and the taste more exquisite than man.

Considered morally, woman, endowed with extreme sensibility, is submitted to a multitude of lively but evanescent impressions; her ideas succeed one another rapidly; she easily forgets past pains, and thinks little on evils to come; but, generally, she has a lively and quick imagination, the activity of which is partially derived from that temperament which, having little muscular force, gives the superiority by that means to the nervous system: hence it follows that woman is more capable of imitation than man; that she pays more attention to physical impressions than to the chain of rea-

soning; that her imagination is more capable of being drawn away, more ready to be excited and has also a greater influence over the body, and that she rather abandons herself to the feelings of the heart than to cold and severe reason; it is physical vigour that renders man superior to these weaknesses; and, accordingly, the most masculine and robust temperaments are the least pliable, as well physically as morally. Who can feel those ecstacies, those extatic transports, if not the nervous woman! All the histories of fanaticism, of extravagance in sentiment, of enthusiasts in animal magnetism, of somnambulism, always shew women in the first rank. It is women who generally act as priestesses, and are addicted to sorcery. We have women who conjure with cards, sibyls, prophetesses and gipsies, who believe in the truth of their art. They are, therefore, exposed to this superstition and credulity only by the radical weakness of their constitution; hence, also, women are more subject than men to nervous diseases, and are more affectionate and sensitive. When, indeed, we consider the delicacy of their fibres, the softness of their cellular

tissue, and its development, their pleasing and graceful forms, we must expect from them all the affections of humanity, compassion, tender charity, and conciliation; which sustain society, connect its different members, strengthen family ties, and form the sweetest attribute of maternity. Hence, woman is endowed with a lively sensibility, which renders her eminently fit to interest herself with infancy, which makes her surmount maternal pains by the sweet sentiment of pity, and renders agreeable to her the cares and details of housewifery; for this purpose, nature has given to this sex the desire of being mothers, a desire more powerful than life, and which renders it capable of all sacrifices. By her weakness the female feels the necessity of loving, of attaching herself, of pleasing; the infant never implores her pity in vain; she braves all sufferings, and meets all dangers for her child: many mothers have been known to precipitate themselves through fire and water to save their children! All the unfortunate belong to woman; devoted to the oppressed, she shares his feelings, and takes upon her his sorrows; we see her go to death as a victim,

and, satisfied with these sacrifices, she demands no higher recompense than to be loved.

Woman, it will be said, is a little too light and too fickle in her actions; but if she wants that vigour of thought, that connexion of reasoning, that abstract meditation, the lot given to her by nature for her share is, nevertheless, brilliant; all that is graceful, delicate, refined; that rapid and unerring taste, that tact which determines what is suitable, that exquisite sensibility in perception, that keen discovery of the ridiculous, that charming talent of conversation which divines at a glance, penetrates sentiments sought to be concealed, opens and interests the heart,—all this is given only to woman in the highest degree. Accordingly, anger in woman, the desire of domineering, an air of violence and superiority, even of arrogance, break the bonds through which the strong is conquered by the weak. In this respect, however, much diversity exists according to the constitution of each woman: she who is of a dark, firm, vigorous, melancholic temperament, will exhibit more obstinacy, less inconstancy and levity in her sensations, than

those of a soft, lymphatic, constitution. But, however, although it is the same with man, woman is generally much more variable and changeable than he.

> Varium et mutabile semper
> Fœmina.

Weakness, say the detractors of this amiable sex, renders women false and addicted to dissimulation. It cannot, however, be doubted that this timid and tender being may pass from the mildness so natural to her sex to the greatest efforts of courage and even extravagant excitement. The weakness of their nervous system renders them susceptible of this profound agitation and this extreme excitation; every thing, in fact, exercises a powerful empire over that frail and tender organization, over slender fibres capable of lively irritation. To complete our view of woman in general, which we have but sketched, let us examine the difference which may exist between her who inhabits the country, and another born and living in the heart of a great city.

It is generally known that country girls enjoy the advantage of being nursed by mothers

who live a life conformable to the will of nature; scarcely have they come out of first infancy when they are already bent under the yoke of labour: frugality presides over their repasts; their education, free from too minute precautions, insensibly familiarises them with the various vicissitudes of the seasons; every day sees them grow and increase in strength; they pass, without a storm and without danger, the epoch of puberty, so often fatal to the girls of great cities; they soon acquire their full development, and may become mothers, and fulfil all the duties of them without experiencing inconvenience from pregnancy.

Let us look into the heart of great cities: we there see most girls, whose parents are in easy circumstances, put after birth into mercenary hands, sucking strange milk, and receiving no care but what is purchased; restored to their family, their weakness is increased and nourished; it is hoped to withdraw them from the laws of nature by removing from them her painful exercises; but soon the frail and feeble constitution of these girls becomes the sport of the seasons, and each of their revolutions is for

them a fertile source of infirmities; susceptible of every thing, they shew every moment the dart which wounds them. Entered into the world, women soon become slaves of pleasures by sacrificing to them the hours of rest—tasting the sweets of sleep only when they are exhausted with fatigue; artificial appetites often make them have recourse to food more highly seasoned, which produces painful digestion; theatrical scenes which most excite their passions are those to which they give the preference; for some, play is a deity to which they sacrifice; finally, they generally expose themselves to the severity of the season covered only with mere gauze. The moment of conception arrives. Too little impressed with the new duties which nature imposes on them, these women neglect to divide the period of gestation between rest and moderate exercise, and a frugal life; some even forget themselves so far as to throw themselves into pleasures least suitable to their new state, and thus discover the secret of metamorphosing a very natural state into a fertile source of grave accidents and critical circumstances.

How much caution and prudence, therefore is required by the physician, in order to regulate the health of an organization so frail and so active as that of woman, in all states of her life! How many caprices are in her passions! How much play and elasticity in the springs of that inconstant sensibility! Into what abysses of the heart must the physician descend, sometimes with discretion, at others with an imposing firmness!

It would be foreign to our subject to fatigue our readers with the fruitless efforts which have been made for more than thirty centuries to explain the wonderful means by which nature provides for the continuance of the species; each investigator has occasionally given too much rein to his imagination, and thus rendered himself ridiculous.

As to the imagination of the mother, whether it can in any manner influence the formation of the fœtus, the matter is of difficult solution. It is true, there are not wanting histories, or rather tales as to the moral disposition of woman, which is pretended to have much

power in the formation of the fœtus, in modifying the character and complexion of the mind, and no one is ignorant of the popular tradition which assigns more intellect to illegitimate children than to others.

That which cannot be doubted is, that the mind of pregnant women is singularly modified; their desires, their caprices, their disgusts, prove that they are governed by internal sensations, which spring from the new state in which they are; but it does not follow that we should also believe, that unsatisfied desires produce, on the skin of the infant, an organic alteration in a place corresponding to that where the woman has put her hand; it is still only an hypothesis, which the vulgar may take for a reality, but to which the physician cannot attach credit. Is there a woman, indeed, who, before her accouchement, announced that her child would be marked in such or such a manner, in a particular place, and whose prediction has been verified? We know of no instance of the kind. It is at the moment when she sees her child, in whom she perceives some deformity, that she is skilful in

finding resemblances which recall to her mind desires, which frequently she has not experienced. We are therefore ignorant of the cause of the organical alterations which the infant exhibits at birth; however, it may be thought that these marks, or desires, are rather the result of some diseases of the fœtus in the mother's womb.

PREGNANCY.

Pregnancy is that state of the woman who has conceived, and of which conception she is about to bring forth the fruit at the end of the ninth month.

What are the signs which indicate that conception has taken place? They are still covered with a thick veil, which renders them equivocal.

The suppression of the regular menstrual discharge renders conception probable. We have said *probable*, because this suppression may arise from an accidental exposure to the cold, or from a change produced in the economy of the woman, by the marriage state.

Neither is the presence of the sanguineous flow an unerring sign that conception has not taken place. Instances of menstruation during pregnancy are pretty frequent. However, there is every reason to believe, that a woman

is pregnant when, in addition to the symptom before mentioned, she feels languor, lowness of spirits, when her features lengthen, when the skin about her eyes becomes livid, and they appear less lively than usual; when she experiences head-ache, when dark spots appear on different parts of her body. During the first six weeks, we may add, as symptoms, the uneasiness about the præcordia, followed by vomiting, particularly when the stomach is empty, fantastic appetites, unusual passions, swelling of the breasts, increase in their sensibility, enlargement of their veins; finally, sometimes, the beginning of milky secretion and excretion in those organs.

Let her, therefore, distrust those charlatans, who assert, in a very positive manner, that she is pregnant, before the third or fourth month, a time which may indicate the state of gestation by more certain signs. We must refer to treatises on Midwifery for the explanation of those signs, which are: motions of the fœtus, change in the size of the matrix.

HEALTH OF PREGNANT WOMEN.—AIR AND DWELLINGS.

The impressions produced by the air on organized bodies depend on its weight, its degrees of temperature, the proportions in its composition, the alteration which it experiences by the different emanations which mix in it, the current which renews it, and, above all, the sudden changes which are operated in its sensible qualities.

The atmosphere may therefore exhibit qualities which influence the economy more or less strongly, accordingly as the vicissitudes are produced with more or less rapidity, or are more or less intense, and accordingly as the preserving principle of it is more or less energetic.

All women, during their gestation, have not equally to fear the influence of these atmospheric changes; those of the country, leading a life more or less active; those on whom the obligation to procure the necessaries of life has imposed the necessity of labour,

from which it would seem that the delicacy of their organization ought to exempt them, find in themselves the surest protection against the vicissitudes of the air, which they consequently brave with impunity. But let us cast our eyes on those women who, enjoying some fortune, condemn themselves to live in the most absolute inaction, and on those who, born and reared in the heart of great cities, have never seen the country except through their carriage-windows, and who from their cradle have passed their time in the vortex of the world. Such, above all, are the women for whom we write, and to whom we cannot too earnestly recommend the severe precepts of the laws which govern health. Pregnant women, therefore, do not always sustain without inconvenience, the action of cold air, and particularly in proportion as it is humid; the catarrhal affections of the chest, and the cough which accompanies them, being capable of producing serious consequences, such as abortion, &c. They cannot, therefore, be recommended too earnestly not to expose themselves to abrupt changes of temperature, consequently to aban-

don evening walks, and the more so when the ground is moist or marshy; let them, on the contrary, breathe the morning air, which is the purest and most salutary of the whole day; and is also exempt from humidity.

It cannot be disputed that the evil influence of the cold and humidity which prevail in low situations, in large apartments, daily exercises its empire over pregnant women. Theatres have usually a contrary effect. The heat there is sometimes extreme; accordingly, many premature accouchements, and many diseases injurious to the mother and her offspring, have been the result of habitually frequenting those places; and it is not uncommon to see those sensitive women attacked by spasmodic affections which sometimes terminate in miscarriage.

We cannot, therefore, be too earnest in warning women who, during pregnancy, are subject to head-aches and fainting, to deny themselves this kind of pleasure for the whole period; and also to shun crowded assemblies, and, in general, to avoid air loaded with deleterious emanations, such as is always found

wherever a great number of men or animals are assembled in a confined place; the emanations which arise from certain insalubrious places, and strong vapours, would be injurious to them; it is therefore necessary, as much as possible, for pregnant women to remove from the neighbourhood of marshes, tan-pits, places for dressing leather, sewers, &c. Also the air of hospitals and prisons is injurious to them. Accordingly, it is not uncommon to see a frightful mortality in the wards devoted to them; they ought also to remove from their apartments, particularly during the night, such flowers as give the sweetest odour, as the rose, the jessamine, the lily; in a word, every kind of flower which usually disengages too great a quantity of deleterious gases capable of producing too violent an effect on their nervous sensibility, and of causing spasmodic affections which, without those causes, are too frequent in our great cities. The country will, on the contrary, confer inestimable advantages: purity of air, agreeable walks, simplicity, absence of passion and intrigue; how many reasons to induce them to remove from

cities when their means and circumstances admit of it!

The choice of the place of abode for pregnant women is not unimportant; but, unfortunately, it is not permitted to all classes of society to be able to accomplish that which ought to be prescribed in this particular.

CLOTHES AND DRESSING.

As long as, obedient to the laws of nature, women have chosen, in the attire and toilet, only the means of protecting themselves against the inclemency of the seasons, happiness has presided over their days, as modesty has over their actions; but as soon as, eager for admiration, they have listened only to their caprices, most of them have gratified their taste at the expense of their health. Nothing, indeed, is more dangerous for pregnant women, particularly for those of weak constitution, than to leave naked certain parts of their body which ought to be habitually covered, such as the arms and neck—these parts having such

a sympathy, that frequently the least impression felt by the first, transmits itself to the lungs. The same may be said of the breasts, which, besides their delicate texture, partake in some measure of the activity of the uterus, by reason of the strict sympathies which unite them to that organ, so that, being endowed with greater sensibility, the cold must act on them with more energy. Do they wish to appear more agreeable to their husbands? They are deceived as to their true interests; for their best title to the love of their husbands, and to the admiration of every wise man, is in the cares which they bestow on the precious fruit which they bear. Every one, indeed, knows that an improper form or arrangement of dress during pregnancy, may produce serious accidents, and even abortion. When shall we, therefore, see abolished that fatal habit which makes a great number of our ladies wear a busk in their stays during part of their pregnancy? They are, doubtless, ignorant that this kind of cuirass not only checks respiration, but exercises a remarkable influence on the natural form of the chest and

abdomen, and from these results inflammatory swellings of the breasts, difficulty in respiration, head-ache, vertigo, and fainting. What, then, is the intention of those who subject themselves to this constraint, condemning themselves without necessity to perpetual confinement, and its fatal effects? They can have no other object than to satisfy a vanity for which, sooner or later, they will pay dear. These being well-known ill results, it is easy to see how necessary it is for pregnant women to sacrifice to the duties of a mother, particularly towards the end of pregnancy, those stays which fashion has rendered indispensable.

As women are very susceptible of different impressions during pregnancy, they ought to guard themselves the more from the atmospheric influences; the mammæ, very delicate organs, will be protected from the contact of the air; in summer, garments made of flax or hemp are more suitable to pregnant women, because of their property of conducting caloric; they ought to be light, relatively to the degree of muscular power; loose, in order to facilitate the free communication of the body with the

atmosphere; finally, the greatest cleanliness should characterize them. Observation daily shows that garments, rendered moist by perspiration or any other cause, may produce bad effects: they ought, therefore, to be changed as soon as possible for garments well dried. In cold weather, garments too loose would produce a kind of ventilation between them and the surface of the body, and would then be injurious to health; they ought, therefore, on the contrary, to be pretty exactly fitted to the form, so as to confine the caloric as much as possible; those of closely woven silk unite to this advantage, those of not being easily penetrated by any miasm, and of being a very light dress for the body. Woollen garments are, indeed, bad conductors of caloric, but humidity penetrates them too speedily, and contagious miasms attach themselves to them much more easily than to other materials. We cannot, however, too strongly recommend to them to throw off their winter clothes late, and resume them soon. Generally, then, they ought to be clad in such a manner that the garments should exercise no inconvenient pressure, particularly

on the stomach or chest; so that respiration may be in no degree restrained, the abdomen in its development meet no obstacle, the chest no opposition to its motions. The different garments ought, at that time, to rest on the shoulders; and women of the lower classes and countrywomen, instead of confining their petticoats by strings which press on their loins, and which cause considerable pressure on the hips, would do much better by supporting these garments with elastic braces. Women in general ought not to be laced during pregnancy. In the same manner, they ought to reject non-elastic garters, particularly towards the close of pregnancy; they compress the abdominal members near great articulations, occasion œdematous enlargement, and varicose dilatation. Their place, however, may be supplied by elastic garters, or by strings fixed to a part of the dress.

EXERCISE.

Exercise is of great utility to woman, but only so far as it is taken in just measure. It

has, therefore, been observed that country women usually arrive, without accident, at the termination of their pregnancy; during its continuance, they change neither their mode of life nor their occupations; nature surprises them in the midst of their labours; their accouchement is favourable and without ill consequences; in the same manner, in cities, women of the lower ranks are seen to labour continually during that epoch, and, nevertheless, to have a favourable accouchement: it must, therefore, be concluded that want of exercise is the most frequent cause of the accidents which accompany gestation.

If we look at most of our city dames, who enjoy some fortune, we shall see them leading a sedentary life, and even over-cautious, so as not to dare to go out if the air is a little fresh: always thinking on what may possibly injure them, they give themselves up to the most inactive life; they are affected in the most violent manner by all that has an influence on their weak organization; accordingly, they frequently miscarry, give birth with difficulty, and experience fluxes.

We may therefore give it, as a rule, that moderate and habitual exercise is necessary for pregnant women; but is there a period when they ought preferably to take or discontinue it? We may establish, as a precept, that a woman ought to take exercise, during the whole period of gestation, in a manner proportional to her strength, and her usual kind of life, and with the precautions which her condition requires; it will be more advantageous to expose herself freely to the air; and, preferably, to a dry and slightly fresh atmosphere, after light nourishment. This exercise ought to be, as far as possible, extended to all parts, and to be proportioned to the strength of the organs, and to their mode of acting. In the wealthy classes, some plays and the varied walks will take the place of the professions and trades, which exercise, without fatiguing, the body; but violent motions should be carefully avoided; dancing, when it is moderate, may be considered as a salutary exercise for pregnant women; but it too frequently happens that this kind of exercise changes, with them, into a real passion; in

such a case, they would do well to refrain from it, particularly from waltzing, which is more heating than any other dance: to say nothing of the imprudence of some who take iced drinks, and so convert this amusement into a fertile source of abortion and fatal accidents.

Having established the utility of exercise during the whole period of gestation, we should inquire what kinds of exercise women ought to choose and what avoid? Walking on foot is certainly the most suitable, provided it is not carried to fatigue; it will therefore be necessary to consult the taste of the lady as to the place of promenade, as this exercise does not require too scrupulous a calculation; they should prefer places offering most objects pleasing to the imagination; they should, as far as possible, be made to forget the object of their walk; but, it will be said, these counsels are quite useless for poor women, who are obliged to give themselves up to all kinds of exercise during the course of their pregnancy, and who yet experience no ill consequence: this may be true for some, but, however, it would be de-

sirable that they should refrain, after the sixth month, from all exercise capable of producing abortion, such as carrying heavy burdens, drawing water, &c.; observation shews that such efforts as well as forced walking, the action of lifting the arm to reach something, bursts of laughter, running, a false step, loud cries, are sufficient to produce it.

In general every female in the last three months of pregnancy ought to be exempt from labours requiring great efforts or positions of a constraining nature and injurious to health.

Passive motions may be suitable and very useful if they are borne well; but sometimes they produce fainting fits and vomiting, to which pregnant women are already naturally disposed. The same may be said of motions which give shaking, such as is felt in carriages driving on a rough road, and even in a swing; we do not think, however, that we ought to forbid to all women the use of carriages; but those who are at liberty to choose ought to use them rarely, since walking on foot is much more advantageous to them. Trotting on horse-back should be forbidden. Boating in

tranquil water has no other effects than those which result from change of air, from its pressure on the surface of the skin, and from the exercise of the organs of sensation by the change of surrounding objects; this kind of exercise may be suitable if it gives pleasure to the female; but, in order that exercise should be as useful as possible, it must be taken in the open air, and not in cold places; the morning should be preferred to the evening, and it should be used after light nourishment, and with a suitable dress.

The exercise of the organs of sense, like that of the muscular organs, has its exact measure; its excess or its defect produces the same effects. As to that of the intellectual faculties, if pushed too far, it exhausts the strength. The female ought, therefore, during her pregnancy, to avoid all such kinds of study as necessitate deep meditations. Let her not sacrifice her health, by constant sitting up at night, to this kind of study.

It would be a mistake to suppose that it is in the nature of the female constitution to lead a sedentary life; if, in that sex, the constitution

is weak, the surest means of confirming it is exercise. Lycurgus felt the importance of exercise to be so great, that he ordered the young women to exercise themselves in military sports, like the men, not in order to go to war, says Rousseau, but for the purpose of one day bearing children capable of enduring its fatigues; accordingly Sparta saw born within her walls, none but strong children. Pregnancy, far from being inimical to exercise, renders it necessary. It is by its means that weak women will protect themselves from the inconveniences of that state, will diminish and destroy them, when they feel their attacks. But, other things being equal, this exercise ought to be regulated according to the constitution, the strength, the habit, and the seasons; the weak arms of the city women could not sustain the rude and continual labours of the country woman.

REST AND SLEEP.

Exercise, far from being useful to health, would be prejudicial to it, if rest did not

succeed it; both ought to be taken within just limits.

The alternation of watching and rest ought to take place at the times fixed by nature; how then can we approve of the conduct of the young pregnant female who ascends her carriage after having passed the day in her apartment, performing no other motions than those required by the necessities of the toilet? She flies to the theatre, where the great number of individuals assembled has already poisoned the air which she is about to breathe; at a later hour she will repair to a ball or a card party, and there she will pass the whole night, subjected to all sorts of physical or moral influences; she will vainly attempt in the morning to repair the nocturnal loss of sleep; the languid air and pale complexion which she wears on all her features, might inform her of her injurious mode of life. Therefore there is here no parallel with the female whose labour sustains existence; she returns at night, fatigued, but exempt from all uneasiness: a peaceful slumber comes to repair her strength, and to enable her to

recommence the same labours on the following day.

Rest is evidently necessary to the pregnant woman when it is proportioned to the kind and duration of the exercise; excessive rest is one of the defects of the modern education of city women; however, by sometimes lying down during the day, in the latter months of pregnancy, she will prevent those pains in the back, belly, and thighs, which are so frequent at that period; but she should rest after meals, and not take exercise or read until after the first digestion. Sleep repairs the loss sustained during waking. Therefore let her enjoy it, but, in general, its duration should be relative to the fatigue of the organs and to the habit; it ought to continue sufficiently long to overcome lassitude and re-establish the strength. However, having a great propensity to sleep, they may sleep longer than at any other period: if prolonged too much, it would have the disadvantage of want of exercise; and the more so, if taken in too soft a bed, and in great heat. As to prolonged watching, it ought to be avoided, for the loss of sleep at night

cannot always be completely repaired in the morning; nature has designed the night for sleep, she invites us to it by calmness and tranquillity; it is therefore absolutely necessary that the alternate states of wakefulness should be determined by the exact limits assigned by nature.

BEDS AND BATHS.

The object of beds is to procure rest, and to preserve from atmospheric vicissitudes. Pregnant women ought therefore to avoid those that, being too soft, produce perspiration and cause weakness; in the same manner they ought to make use only of such covering as keeps up a degree of heat relative to the temperature of the atmosphere. The best place for beds is in a large apartment, and they should be surrounded with curtains half closed, and this is better than in a narrow recess. Let them be careful not to lie down, as many women do, before digestion is effected; let them be careful, in getting out of bed, not to expose themselves suddenly to

the action of cold; but they will also do well not to warm their bed artificially. Cold, when it is not too great, gives energy; heat, on the contrary, enervates and creates a disposition to flux.

Experience shews that tepid baths are not forbidden, absolutely, during pregnancy, in spite of the prejudice which exists against administering them; but this state does not require them necessarily. The use of them ought always to be relative to the temperament and to the habit of the female, who ought always to be questioned before administering them. In thus clearing the skin from the impurity which has collected on it, insensible perspiration is promoted, and its organic activity is increased by the assistance of the requisite precautions. In this case they can be salutary only as promoting cleanliness. It does not belong to our subject to speak of the cases where baths might be advantageously employed as therapeutic means; however, baths will be very proper for women of a dry and nervous constitution, by unbending the fibre, by giving elasticity to the skin, and by producing gentle perspiration. There

are women of an irritable constitution who, on the least occasion are attacked by convulsions or other spasmodic effects which threaten abortion: it is then only by the use of baths that these affections can be calmed, and in such cases women owe to the frequent use of them the happiness of being mothers; but they might be injurious to women of a soft and lymphatic constitution; baths would only increase this disposition, and might give rise to lymphatic swellings and to leucorrhœa or fluor albus, and if they were too frequent, they would produce inertia in the matrix. Baths may therefore be employed as means of cleanliness by women of a bilious constitution, whose perspiration is abundant and often of a penetrating odour; they would promote this evacuation, the diminution of which might have disastrous effects; but it will always be prudent to forbid the use of baths to women of sanguine habit, at least not to administer them without much prudence.

Tepid baths may be taken with advantage about the close of pregnancy, by women advanced in age and pregnant for the first time; however, hip-baths might suffice, in most cases,

to relax the soft parts, and promote their extension during accouchement. Notwithstanding the use which women may make of baths, it is always necessary to ascertain the manner in which they bear them, and their increased sensibility should not be lost sight of; accordingly, it is prudent for women, on coming out of the bath, to wrap themselves in woollen coverings in order to prevent the chill which results from too speedy an evaporation; and in the same manner they ought not to expose themselves to the action of the air, particularly if it is cold.

As to local baths, such as those of the feet and hips, they have been generally forbidden, and no one is ignorant that many girls employ them with a criminal purpose: we acknowledge, indeed, that baths taken inconsiderately may derange nature in her operations, but almost always unavailingly for the purpose of women who do not deserve to bear the name of mother; therefore we would not hesitate to prescribe them, if any serious symptoms rendered them necessary, without fear of detriment to the fruit which they carry. General or partial ablutions

may be made with impunity, for pregnant women ought to neglect no means of cleanliness; but they should always avoid very cold water or repeating the lotions too frequently.

FOOD AND DRINK.

If moderation and selection in drinking and eating are precepts indispensable for every man who wishes to keep himself in health, they are still more essential for pregnant women; since their state exposes them to a thousand accidents which they have not to take into consideration under any other circumstances. The quantity of food which they ought to take, should therefore be proportional to their real wants and to the strength of their stomach. But is it proper, as soon as they think themselves pregnant, to eat enough for two?—a ridiculous and often fatal prejudice; for observation and reasoning completely refute that popular error. These credulous women are, doubtless, ignorant that the suspension of the periodic discharge provides for the double nutrition, even beyond

PREGNANCY.

…ure a healthful diet is not one which …
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…ich nature wants not the least if nutrition
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…t is urged that a woman of sound and robust
…constitution may eat almost anything during
…pregnancy, but with moderation: while, on
…contrary, a weak and delicate female requires
…rom nature in this respect: she should use
…nourishment simple and easily digested, and
…when in a small bulk contains much nutritious
…matter; but it is well studiously to avoid
…ncreasing food, heavy pastry and highly seasoned
…dishes.

Women, in general, should, therefore, con-
…fine themselves to a moderate regimen at the
…period when the stomach suffers, and when
…the experience nausea, vomiting, and distastes,
…necessary for sufficient food. It is a wise
…precaution of nature to have taken away the
…sensation of hunger during this first period of pregnancy;
…aches might be dreaded, hea-

viness in the limbs, bleeding at the nose, and spitting of blood. It will therefore always be prudent to eat little at a time, but often; to take at night slight nourishment, and in a word, to satisfy the natural want only in the proportion of the digestive power. Most women may then conform to this regimen; but, when they come to the fourth or fifth month, the desire of food goes too far with some; they should then carefully avoid yielding to these immoderate appetites, or giving themselves up to the caprices of an irregular imagination, to satisfy an artificial want to which they attach fantastic ideas of importance. Is it not, indeed, ridiculous to believe that unless the desires, of pregnant women are satisfied, their children will, at birth, bring into the world the representations of the things which have been longed for? These, generally, would overload their stomach instead of satisfying it: not that it is necessary to confine them to too severe a regimen; as too great a quantity of nourishment may injure, so the want of nutrition may be attended with some dangers: accordingly, it is not uncommon to see poverty

produce abortion; abstinence and intemperance are, therefore, equally injurious to females in this condition.

It will be better to increase the number of their repasts, to eat little at a time, to choose food which offers little resistance to the action of the stomach, of which we may be certain if the digestion of it is accomplished easily; finally, if the usual functions are not deranged, to take at night only light nourishment, should the habit of eating at that time have been contracted. But what is the nature of the nourishment which a pregnant woman ought to take, when it is considered that there are no circumstances in life under which the taste and appetite becomes more fantastic? The choice should be directed with reference to their habits, their appetite, and above all to experience. It will be useful, however, to reject food of difficult digestion, such as fat or viscous substances, hard, smoked, or salted meats,—indeed all food which the art of the cook has rendered acrid and heating. It might, doubtless, be dangerous for them to change suddenly the nature of their usual food; but as the state

of pregnancy brings on changes in the constitution, it is also very proper for them to second the suggestions of that vigilant sentinel, by voluntarily introducing changes in their regimen, until they have so regulated it as to use no food unsuitable to their condition. It is not only in the nature of the food that derangements of the economy of such persons originate, but still more frequently in that peculiar taste which makes many in that state seek such food as will excite the appetite and gratify the palate,—we mean exotic, and sometimes indigenous seasonings.

Women of a nervous and delicate constitution, naturally weak, with whom a regimen involving diminution of the quantity of food might produce disastrous results, will do well to use succulent food, such as tender meats, veal, mutton, roast lamb, young fowl, pigeons, partridges, fish, fresh eggs, &c. But as to women of sanguine habit, they should prefer a vegetable diet, because, in a larger bulk, the food then contains much less nutritious matter. Women of a bilious constitution will use, with advantage, fruits of a mucous, saccharine and acid quality,

very ripe, which are unjustly regarded as injurious and calculated to produce gripes, but which rather have a tendency to diminish the constipation so common during pregnancy.

Of drinks, that which, beyond contradiction, is the best, is water. It is the best for promoting digestion.

During summer, and in the day-time, they may make use of juices of fruit of an acid character, as calculated to quench the thirst; but they should very carefully avoid drinks essentially stimulating, which are almost always dangerous by often producing abortion.

Coffee causes sleeplessness, an agitation, a general excitement which is not followed by perspiration like that produced by other stimulants; it may be useful, however, after an abundant meal, by aiding the digestive powers, but it renders women subject to flux, and is particularly injurious to those whose habit tends to false birth or miscarriage; the quantity will be diminished without suppressing it wholly, where the habit of taking it has been contracted.

As to milk with coffee, we may be more indulgent.

We should therefore say in general, that warm drinks weaken the stomach, and consequently that women ought not to make too free a use of them during their gestation. As to iced drinks, observation daily proves that they produce violent colic and serious accidents; hence the necessity of great reserve in the use of them.

The quantity of liquids ought therefore to be proportional to the nature of the food and to the habit. Drinking too abundantly disturbs digestion, and weakens the stomach; except at the time of taking food, they should be proportioned to the loss of fluids. Every one knows that more is drunk in summer than in winter, because there is much more evacuation by perspiration.

NATURAL EVACUATIONS AND EVACUANTS.

It is not a matter of indifference to a pregnant female to neglect the means which tend to the preservation of her health; she should, therefore, yield to the first solicitations made

by urine and fæcal matter. These excrementitious evacuations ought to be effected in proper proportions, at the time when nature prescribes the use of them. For, if the female resists the first intimation, the urgent want is sometimes long without making itself again felt. Hence results a constipation sometimes very obstinate, which may produce a feeling of weight in the region of the pelvis, pains in the head, want of appetite, and, perhaps, abortion. At other times this state of retaining those substances, by their weight, acridity, and the distension of the bowels, causes intolerable pain, and a liquid and abundant evacuation, which is prolonged and requires the aid of art. It is, therefore, obvious how useful it is to yield to the first desire, and to regulate that evacuation by habit, and even to facilitate it by artificial means. She may, therefore, maintain that freedom of bowels by the aid of an appropriate regimen; and if this be not sufficient, she should have recourse to some emollient clysters, the only ones which should be permitted to be used; but the abuse of them ought to be avoided, because they would destroy the tone of the

organ, and bring on the necessity of habitually recurring to them.

The same may be said of those who do not satisfy the first inclination which the bladder expresses; they expose themselves to the danger, in the sequel, of being obliged to seek relief from the use of the catheter.

Abundant cutaneous exudation produces general weakness, and renders the skin more susceptible of being affected by atmospheric vicissitudes. Its suppression gives birth to a number of diseases, more or less severe, according to the constitution of individuals. It is, therefore, necessary to keep up a mild exudation, and to neglect no means of cleanliness relatively to the surface of that organ. They ought then to use moderate covering, to avoid too much clothing, or a temperature too high, and exercises too violent. On this subject we cannot too much reprehend the use of cosmetics, which most frequently destroy the functions of the skin, and which are generally injurious; cutting the hair during pregnancy, might give rise to consequences sometimes very serious, if the head were not protected

from the contact of a humid and cold atmosphere, or if the female neglected to supply, by some evacuants, the secretion which took place in the hair which has been removed. As to the suppression of insensible perspiration, this likewise produces real dangers; it may be produced without irritation, without trouble, and then it is perceived only by the increase of urine, a slight diarrhœa or some other catarrhs; a pregnant woman, however, rarely fails to experience more serious symptoms from its suppression, such as violent catarrh, pains in the reins, phlegmatic affections of the chest, abdomen, &c.; but these effects are the more disastrous in proportion as the suppression has been more sudden, and as the impression has made itself felt on a part of the skin more sensitive and less extended. Partial suppressions equally merit attention in proportion to the absence of compensating evacuations, and as the symptoms of their suppression are dissipated only by the return of the suppressed evacuation. We may say the same respecting tetters, or other eruptions of the skin, and of evacuations established by art, and become habitual.

The excretion of mucous matter may vary by its small quantity or its abundance, which almost always indicates a disposition to catarrh, a weakness of constitution,—and it is not rare to see pregnant women subject to disorders in the digestive organs which are manifested by want of appetite, depraved taste, and often by symptoms of gastric embarrassment, which render evacuants necessary. The interior of the genital organs sometimes becomes the seat of an abundant mucous evacuation, which, because of the habit, merits much attention; therefore, if this too copious evacuation continued to exhaust the mother and injure the child, it should not be suddenly suppressed; but a strengthening regimen prescribed.

As to the purgatives which certain accoucheurs prescribe to all women, at particular epochs, thinking thereby to prevent all the accidents which may be manifested during labour,—there does not really exist any period which renders it necessary for the practitioner to prescribe evacuants; their necessity should be indicated by the symptoms which, in every other circumstance of life, require the em-

ployment of them; then whatever may be the epoch of pregnancy, they should be employed; but with the greatest precaution. We may, however, assign the interval between the fourth and seventh month as the most proper period; but no general rule can be given.

BLEEDING.

Many women have the habit of getting themselves bled about the middle of pregnancy, or in the seventh month; but few at the beginning: they think they would be in danger of abortion, or of a more difficult labour, if they did not submit to this kind of evacuation.

Experience, although late, has already done justice to the truth; and reason is beginning to triumph over these prejudices, the fruit of the ignorance or vain theories of certain accoucheurs. How remote, then, from the true end are those who imagine that they ought to prescribe bleeding because a woman is preg-

nant, and not because of the symptoms which may be superadded to that state.

Who knows but the state of the vast number of feeble children who daily give us pain to see them, ought not to be partly attributed to the abuse which we have just condemned? The same might perhaps be said of the purgatives and emetics which are distributed by midwives and other persons destitute of proper instruction: besides that they may produce disastrous effects analagous to those of bleeding, they are capable of bringing on abortion; but as they may sometimes become necessary, they ought to be prescribed only by men of regular medical education.

Is bloodletting absolutely necessary during pregnancy? No, doubtless; but that state does not forbid it. This is a truth attested by good practitioners.

Let us try to point out, as precisely as possible, the cases in which bloodletting may be useful, and those of a contrary character; let us also determine whether there is a precise period fixed by nature for that evacuation; what quantity of blood may be drawn from the

arm without inconvenience during pregnancy; and whether we may substitute local for general bleeding.

It may be laid down as a principle, that bleeding may be useful during pregnancy, as often as the woman is very plethoric, or when she experiences either pains in the head, vertigo, noises in the head, sleeplessness, epistaxis or bleeding at the nose, and even sometimes spitting of blood; if to all these symptoms are added fulness and strength of pulse, if the face is animated,—then slight bleedings, often repeated, may be advantageously recommended to them; the same may be said for those who may have contracted the habit of losing blood in their former pregnancies, and who have already suffered spontaneous abortion. Bleeding would also be very useful when the sensibility of the uterus and its spasmodic motions give reason to fear abortion. It would then, after the tepid bath, be the best antispasmodic. We also think it prudent and advisable to perform this operation on women who have menstruated during the first months and during the whole of their pregnancy; for nature seems then to

indicate a superabundance of blood; but it will always be preferable to perform it at the period of the appearance of the discharge and not during its continuance.

If bleeding may be necessary in the cases before mentioned, would it not be rash and even very injurious to phlebotomise a female of a very lymphatic constitution, whose fibre is soft and who is naturally weak, and consequently irritable and sensitive? What well-informed practitioner would recommend bleeding to the pale, colourless female, whose menstrual discharge, before pregnancy, was scarcely regular; and who, because she is pregnant, wishes to lose blood, the constituents of which, on the contrary, would soon require to be enriched? Who would not see, in that picture, a victim voluntarily offering herself at the altar of vain prejudices? Bleeding would deprive her of the little strength which she possessed, and it might destroy her prospect of a happy accouchement, if her pregnancy continued till the due time, for very probably abortion would be the sad result of it. However, every medical man is daily consulted by females calling for this sanguineous evacuation.

They ought not to use bleeding without the advice of a judicious physician or surgeon, who, after an examination of their constitution, and of the symptoms which they exhibit, will prescribe the use of it, and determine the quantity and time. It is said that hemorrhage during labour and after the accouchement, is prevented by bleeding towards the end of pregnancy: this may be, with very plethoric women; but in the contrary case, it might produce it. Instead, therefore, of depleting a woman of weak constitution, a good regimen and tonics should be prescribed for her; her strength will thus be increased, and the subsequent accidents to which weakness might give rise will be prevented. It is, therefore, not more reasonable to determine, in pregnancy, the period for taking blood, than it would be to fix the period of administering a purgative; since the operation is useful only when symptoms call for it, and is not necessary otherwise. Should we recommend it to be performed at the end of the fourth month,—or four months and a half,—in the seventh month,—or at the end of the ninth? It would be wrong, in case of a bleeding

called for by symptoms, to suppose that we should wait until half the period of pregnancy has expired; since it might be more useful in the first months, a time when abortions are most common, which might be prevented by this means; being performed in the third month, it would prevent a second, or a third miscarriage; care, however, being taken to perform it only some days before that period of their pregnancy when they have usually suffered an untimely birth.

The same may be said of women who have menstruated abundantly before their pregnancy. Bloodletting in the first months would be very useful to them; but it is not easy to overcome the prejudice which has pronounced it dangerous then, and it is not uncommon to meet females who obstinately refuse, and who at a later period, loudly call for it without any need. What quantity of blood ought to be taken from a pregnant woman? The quantity ought to be proportioned to her strength, constitution, and age, and to the violence of the accidents which she dreads; and as, during pregnancy, nothing is so much to be dreaded as debility,—

the bleeding should generally be moderate; and if several are necessary, they should be at distant intervals, unless there is urgency; however, it is always proper to be sparing of blood.

Is it indifferent to bleed in the arm or in any other part of the body? As the object most frequently is to remedy a general plethora, bleeding in the arm is preferable; not that bleeding in the foot produces abortion, though it would be imprudent to employ it, particularly in the first periods of pregnancy; but if symptoms called imperatively for it, it should be adopted even at such a risk, for the child cannot be preserved without the mother; but such fears are generally futile.

THE MORAL AFFECTIONS.

In the state of pregnancy some very important considerations are drawn from the changes it may produce on the moral character; accordingly, some women who, in their habitual state, were distinguished for their mild and amiable temper, become morose, passionate, and irascible

during a certain period of gestation; and it is not uncommon to see an excellent mother and tender wife, vow, during her pregnancy, an implacable hatred against her husband or one of her children: the least provocation is sufficient to inflame her rage and to raise it even to fury. A woman's susceptibility is so great during that period, that it renders her passions very acute. They then require the greatest attention, and consequently ought to avoid every impression capable of acting strongly on them, for there is no cause of abortion more powerful and more frequent. The Athenians and Romans had an extreme veneration for women in this state; the privileges which they enjoyed had certainly a very laudable object, and it is to be regretted that several of them have fallen into disuse. To respect a pregnant woman is to contribute to her preservation and that of her child.

Under these circumstances, the greatest forbearance should be exercised, for "a few moments of enduring silence would often prevent years of discord and unhappiness; but the keen retort and waspish argument too

often break the chain of affection, link by link, and leave the heart with no tie to hold it, but a cold and frigid duty."*

Of all the impressions exercised on our senses, none have more influence on the imagination than those of vision. Accordingly, it would be useful to remove from the public walks, porches of churches, and other places, those deformed and mutilated persons who aim at exciting compassion by exhibiting to the passers by, deformed limbs, disgusting wounds, and hideous ulcers, and even fits of epilepsy; and no one is ignorant that simulated epilepsy is not uncommon; far from us, however, is the notion that these impressions are conveyed to the fœtus! but the

* I cannot dismiss this part of my subject without requesting a little forbearance towards the medical attendant; for patients should recollect that "in the first place the profession is one of which the successful pursuit is seldom attended with the most pleasing intercourse of society; its disciples must perforce, view human nature in its most fretful and disagreeable moments, when it is almost impossible to please, and too often, sure to offend, even with the most assiduous care to avoid it:" in fact the life of a medical man is, as Dr. Johnson describes it, "a melancholy routine of attendance on misery; requiring not only gentle submission to peevishness and caprice, but likewise involving a continual sacrifice of convenience, rest, and pleasure."

fear of giving birth to a child resembling these objects, which is entertained by some women, may cause such an agitation as may end in premature labour.

The printing of reports, frequently false, in the public papers, respecting the birth of monsters, ought to be rigidly prevented.

The hearing, in its turn, affects the general sensibility; the impressions which it experiences excites the whole economy, and numerous examples attest the possibility of developing various passions, in sensitive individuals, by music; and as, by that means, any violent passion may be awakened, inspiring love, cheerfulness, despondency, &c., we see how much caution a pregnant woman ought to exercise respecting this art, and that she should not hear all species of music. The hearing may also be affected by the sudden and violent noise of thunder or of artillery; the same may be said of funeral bells in parishes of small extent, where the cause of each death is soon known to all the inhabitants, and the more so if the deceased person is a victim of accouchement or its consequences.

The smell has also a great influence on the sensibility, if the odour is strong; and sometimes the sweetest smells give a violent headache, or produce an effect on the stomach, causing vomiting; in some women they are known to produce attacks of hysterics, in others fainting; and these effects are more particularly observed during pregnancy, at which period serious consequences frequently follow from them: therefore, in general, all emanations which have a disagreeable effect on the smell may have a sympathetic influence, and ought, consequently, to be avoided.

The passions have no less disastrous effects; women ought to watch over their imagination during the first period of their gestation, avoiding the perusal of romances and the witnessing of certain tragedies. They should also avoid exciting their sensibility. All objects of annoyance ought to be removed. Neither good nor bad news should be communicated except with great precaution. Those about them should judiciously avoid being offended at their caprices, and at an indifference which sometimes extends even to themselves, and should have

the greatest indulgence for fantastic notions, which ought to be attributed to the state of the organs. In a word, let their condition inspire respect.

Every one knows that violent grief produces the most extensive effect on the organization, and might cause the female to fall into a state of weakness and lassitude which may be regarded as a sad presage of the obstacles which debility throws in the way of accouchement, and of the disasters which are likely to follow. It is well ascertained that pregnancy may be disturbed by indiscreet tales of midwives or gossips; and who has not heard of those unfortunate predictions made by gipsy women to pregnant females? On the contrary, all painful emotions ought to be avoided, as well as gloomy and stormy passions; and they should carefully shun occasions of anger or immoderate transports of joy, since excessive joy is not without danger.

The object should be the recreation of the female by all possible means which may gratify her tastes and her temper; but of all states of the mind the only salutary one is a mild and

tranquil gaiety. All others ought to be brought to this as far as possible; carefully avoiding sudden passions and rapid changes, hatred, jealousy, fear, as they may strongly affect her condition. The pregnant woman, therefore, has a claim to mildness and consideration, and should be regarded as sacred, and the inhuman wretches who treat her badly ought to be punished severely. We may also notice, on this topic, the culpable negligence with which many husbands treat the annoyances and diseases of their wives when pregnant. Such husbands are generally incompetent judges of the degree of risk and peril which their companions encounter. And we should equally condemn such midwives as make a parade, before their patient, of the difficult cases in which they have been engaged with credit. The imagination of the woman about to be brought to bed may be powerfully excited by such narratives, and it is easy to conceive how this apprehension may increase the state of spasm, and render difficult a labour which otherwise might have been favourable.

ACCOUCHEMENT.

Accouchement has for its object the birth of a new being; and in this point of view is one of the most important functions of the economy.

The time occupied by the labour of parturition is designated by the name of "confinement" or "lying-in."

Can we assign a precise epoch for accouchement?—and does it not vary in different species of animals? What shall we say when we hear of pregnancy prolonged to the tenth, eleventh and twelfth month, and even longer? It must be confessed that we are still much embarrassed on this point.

Let us, without prejudice, compare, in our own climate, country women and those of cities. The former, continually called away by necessary occupations, frequently find themselves in the middle of pregnancy, almost without having perceived it; arrived at the end of the ninth month, as they are not in haste to be brought to bed, they do not aggravate the pains of child-bearing by the uneasiness of anxious

expectation. Nature sometimes surprises them in the midst of their daily occupations, finding them with robust organs and a calm mind; she works without opposition, and consequently delivers them with less suffering and more speed; they have not to dread the consequences of accouchement, which are in part real diseases only for the great number of city women, and partly a kind of etiquette and convention, which subject them, during a certain length of time, to the treatment of invalids. Our vigorous village women have not time to move methodically, for several weeks, from the bed to a sofa; their courage supplies the strength which necessity sometimes gives to the women of cities.

However, it cannot be doubted that this function would be more efficaciously seconded, if the number of persons who are to aid a woman at her delivery, were confined to one or two of her most intimate friends, who, by kindness of manner, would dissipate her sufferings, and by a cheerful countenance, calm her terrors; and an accoucheur whose coolness, patience, reserve and serenity, should serve as a warrant for her being tranquillized. It cannot be doubted, we

repeat, but that a woman would be more usefully assisted by these means, than by the tumultuous presence of a great number of alarmed and gloomy countenances, and multiplied and often misplaced attentions, which enlarge, in her imagination, the evil which she is to suffer, and the danger which she fears.

We may suppose that the mother, hitherto wise and prudent, has done nothing to impair her health; accordingly she may rely with perfect confidence on the admirable resources of nature; her efforts will be proportioned to the constitution and to the strength; the mother may resign herself to the course of her operations; the degrees, by which she advances to the great end which she has to fulfil, are sometimes slow, but always sure; and she is not to be pressed or disturbed with impunity.

In this condition, more than in any other, patience will protect the mother from pains: she must take care that she do not, from too much eagerness to abridge their duration, hold her breath or make an effort to increase the natural energy of her organs; by so doing she would perhaps exhaust herself to such a

degree as to be no longer able to bear the fatigue which accompanies the complete expulsion of the child; and her unseasonable efforts, when the organs are not sufficiently prepared, would tear, rather than dilate, those delicate and eminently sensitive parts. The errors of ignorance, presumptuous rashness and vain theories of the imagination, have at length yielded to the unerring precepts of reason and experience. These have clearly proved that, in every sound and well-formed female, the power of nature alone is sufficient for the accomplishment of her greatest work,—the preservation of the human species; and that, in the regular course of the labour of parturition, the active participation of an indiscreet or officious hand, and the untimely efforts of the female, are more calculated to increase her sufferings, to disturb and painfully prolong her labour, than to be of service.

If the accouchement is very tedious, a little nourishment may be needful. But the food should always be of a mild and refreshing nature.

The mother must be on her guard against

pretended cordials, heating meats and spirituous liquors, which may be proposed to her under the specious pretext of sustaining her strength. The fever which they occasion would render the pains irregular and imperfect, and the accidents, which might be the consequence ruin her health for life.

She must call to her aid the skilful man whom she has selected; and admit only a careful nurse into the chamber with him. She must not yield to the desire which her female friends may testify, of being present at the moment of birth. Without repeating that the air of a close chamber is soon vitiated by the respiration and perspiration of a number of people, she will obtain by this means a calmness and tranquillity much more useful than the noisy attendance and foolish gabble of officious ignorance, accompanied by alternate expressions of hope and fear, which, without ever being useful, may produce the worst effects.

When her child is born, she must deny herself the sweet pleasure of folding it immediately in her arms, and giving the first kiss to that, which, for nine months, and during her labour,

has cost so many pains. She must not even ask its sex; but wait until the delivery is entirely accomplished, and until, having been carried to the bed where she is to pass the time of lying-in, calmness shall have succeeded the storm: nothing then will disturb her maternal joy. Before that moment, her heart would perhaps be so moved by the presence of her child,—by the pleasure of seeing her hope crowned in the birth of a son,—or by the grief of being deceived in her expectation, that her delivery might be retarded, and its consequences rendered more dangerous.

But the first cries of her child are the first appeal to the tenderness of its mother: it claims our first care. We may now instruct in her duties the female who, at this moment, holds it in her arms, and then resume the counsels necessary in reference to her own position.

ATTENTIONS REQUIRED BY THE INFANT.

THE ORGANIZATION.

At the moment of conception, the child was scarcely as big as a grain of millet; but its development is so rapid in its mother's womb, that at the end of nine months, the usual period of its captivity, it weighs from eight to ten pounds, and is in length from eighteen to twenty inches.* Surrounded by a tepid liquid,

* Extract from Dr. Cummins's Lectures on Medical Jurisprudence.

"Haller states that the embryo is not perceivable till the fifteenth or twentieth day after conception. M. Velpeau, however, distinguished three cases of twelve days, and found it about the size of a pea. Also of the size of a hazel-nut between twenty-one and thirty days. The aperture of the mouth is now seen, as also the nostrils and eyes; but the ears are not visible until about six or seven weeks.

"At six weeks it is about the size of a hen's egg, and one inch in length. At this period, the foot is distinct from the

its motions are easy, and its limbs are in a state of suppleness, which is favourable to their

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hand; and a point of ossification may be detected in each half of the lower jaw, as also in each clavicle.

Two Months:

Measures 1½ inches; weighs ½ ounce.—Rudiments of the lungs now visible; ossification of the frontal bone, also of some of the ribs. The placenta assumes a distinct form, and the umbilical vessels are tortuous.

Three Months:

Measures 3 inches; weighs 1½ ounces.—Fingers very distinct; eyelids formed; ventricles of the heart separated.

Four Months:

Measures 6 inches; weighs 3 ounces.—Nails begin to be observable; meconium in the duodenum; mouth large and open; skin of a pink colour.

Five Months:

Measures 7 inches; weighs 7 ounces.—Gall-bladder distinct; rudiments of the teeth may be detected.

Six Months:

Measures 10 inches; weighs one pound.—A few silvery hairs on the head; feet a purplish red colour; a sebaceous secretion on the skin.

Seven Months:

Measures above 12 inches; weighs from 3 to 4 pounds.—The membrana pupillaris generally disappears in the course of this month. The eyelids no longer glued together; the nails do not reach the ends of the fingers; meconium is diffused through the whole intestinal canal; lungs reddish-brown, and like liver.

development. At birth, prodigious changes are effected in its manner of living. The external air is thrown into its lungs, which, up to that moment have been collapsed; it distends them and opens a free passage for the blood which the heart discharges into them; its stomach, which was in a state of inactivity in the womb, begins to exert functions which are of the highest importance to the support of its life. The organs of sense, which, for nine months have been strangers to any impression, are forcibly struck by external bodies; they exhibit that modification of pain which informs the child of its wants.

Everything declares the extreme delicacy of its parts at the moment of birth. The epidermis, which covers its skin, is so thin that the

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Eight Months:

Measures 14 to 16 inches; weighs from 4 to 5 pounds.—Nails reach the tips of the fingers; brain presents appearance of convolution, but no white substance.

Nine Months:

Measures about 18 inches; weighs 6 or 7 pounds.—Half the length of the whole reaches the umbilicus; some appearance of white substance observable in the brain.

numerous vessels which form its texture let themselves be seen, and give it a deep red colour. The fibres of the different organs are soft, loose and saturated with liquids; the consistency of the membranes is so weak, that being rubbed against each other, or pressed between the fingers, they become torn. The muscles are soft, weak, and incapable of sustaining or moving the body. The bones, very small, have little solidity; they are so tender as to be easily bent; their extremities do not form one body with the intervening part; they are soft, mucous, and cartilaginous, and are united to the remainder by a cartilage destined to disappear in the progress of age. The infant's head, compared to that of a full-grown man, is proportionally much larger. The osseous case of the cranium, of which the development is not yet complete, presents, in the upper part, a space of the form of a lozenge, which is closed only by a membrane: this is the fontanelle, through which are distinctly felt the pulsations of the arteries of the brain.

The glandular parts are larger in the newborn infant than when it is some months old.

The size of the liver, pancreas and mesenteric glands shows this as to the belly. In the chest we see the thymus gland diminishing progressively from birth, and ultimately disappearing altogether. At the exterior of this cavity, the breasts, in both sexes, are tense, swollen, and from them comes a whitish milky liquor, analogous to colostrum. The salival glands are neither less developed nor less active, as is evident from the abundant flow of saliva which makes all infants dribble.

Besides these parts which are destined for secretions, there are others known by the name of mucous crypts, the development of which is no less perceptible; those of the interior membrane of the nose form a viscous and superabundant humour which is rejected either by the nose or the mouth; those of the latter cavity secrete a humour which is mingled with the saliva, and gives it the ropy consistence which is observed in that of infants. It is the same with those of the stomach, the intestines, and the bladder. A character common to the humours secreted by the glands at this period of life is to be sweet, unctuous, watery even;

the bile itself is reddish, viscous and without bitterness.

Anatomical researches of a very exact kind have proved to demonstration that the brain and the nerves which issue from it, are the parts of the organization which are first formed in animals. Hence, doubtless, that exquisite sensibility which is observed in children, and which becomes less, proportionally, with the lapse of time from birth. Hence, also, perhaps, in order to protect the infant from dangerous irritations, wise and provident nature has, as it were, only sketched out the organs of the senses. Indeed, the aqueous humour of the eye is turbid, opaque; the cornea is very thick and wrinkled, a disposition which prevents the luminous rays from producing too vivid an impression on the delicate fibres of the retina. The partial vision of infants lasts for a month or more: its object seems to be to give the eye time for assuming form and strength to enable it to see well, and for becoming accustomed by insensible degrees to the contact of light. An external auditory conduit, scarcely developed, and often filled with ceruminous humour, the membrane of the

tympanum loose and thick,—such is the infant's organ of hearing. By this structure the pulses of sound will strike the drum in less numbers; their action will be deadened, and the impression produced by them will be much less acute. The abundance of mucus which lines the membrane of the interior of the nose diminishes the influence of the odoriferous particles which the air brings into its interior, and prevents the irritation and titillation of its membrane; a similar humour invests the membrane which covers the trachea, and its divisions in the lungs, and this protects it from receiving too strong an impression from the external air.

All that we have just said was indispensable in order to explain the kind of care which the new-born infant requires: for it is only by exact ideas on the structure of the parts of its body, and the functions which they are destined to fulfil, that we can discover the means calculated to promote their development and increase.

FIRST CARES REQUIRED.

Of all the animals that inhabit the earth, man, at his birth, is the weakest and the least advanced in the career which he is to run; none has more need than he of the cares of his fellow-creatures, and, if he were deprived of them, he would infallibly perish. A being totally passive, he has no consciousness of his existence; he is destitute of will, which renders it easy to accomplish the duties to be fulfilled towards him. These duties, all easy and agreeable when they are well known, appear to many fathers and mothers to present insurmountable difficulties, involving a multitude of minutiæ to which they cannot confine themselves. It is, doubtless, in order to get rid of these that they intrust their children to the hands of a mercenary nurse, as careless as themselves of the fate of the little creature, and not always measuring her cares by the money which she receives from them.

Scarcely has the new-born infant come out of its mother's womb, when it gives sign of pain

by crying; the equable heat of the water of the amnios being suddenly changed for the variable and much lower temperature of the atmospheric air, produces on its tender and delicate skin, as well as on the respiratory passages, a deep impression, which can produce on a brain as yet imperfect of sensations, none but that of pain. The first care of the accoucheur is to prevent a fatal hæmorrhage, by tying the cord, and by tepid lotions, to clear its skin from the albuminous coat deposited on it by the liquid of the amnios. Great physicians and celebrated philosophers have reprobated the ancient and barbarous custom of plunging the newborn infant into cold or even icy water on its issuing from its mother's womb.

In spite of all the attention and address of the accoucheur, it sometimes happens that the umbilical cord diminishing in volume, the ligature becomes too loose and blood escapes: there have been some instances of children who have perished from that accident. It is therefore proper to recommend nurses and attendants to well watch and guard against it. If this misfortune should happen, another ligature should

immediately be made, and, as an accoucheur or midwife cannot always be found at the very moment when they are needed, it is essential that, among the persons about the child, there should be one who possesses sufficient skill to supply their place, which is not difficult in this case, since it is sufficient to treble a strong thread, and to make a double knot, to be drawn close when the cord has been inserted in it; a second will secure the first, and prevent the ligature from getting insecure.

The child should be examined with care by the accoucheur, who ought, first of all, to ascertain whether all the parts of its body are in their natural state, or whether there is not some malformation requiring the immediate aid of his art. The next duty of the accoucheur, is, most imperatively to forbid the nurse's washing the infant's head with *spirits*, which is a most unfeeling, barbarous, and baneful practice, suggested by ignorance, and continued by prejudice. The infant requires its animal heat to be preserved: but the evaporating property of *spirits* quickly deprives it of a part of that heat, which is so essential to its well-being. When

the new-born infant appears well and full of life, Ballexserd recommends delay, before giving it anything, until it is freed from the meconium which obstructs its intestines, and from the slimy matter which lines the trachea. He thinks that if too much haste is made to give it the breast or food before this matter has been got rid of, the milk which it swallows may grow sour on the stomach and in the intestines, and thus occasion violent colic. He adds that nourishment need not be given to it for twenty-four or even thirty hours if necessary.

After these first cares, it is proper to attend to the natural evacuations of the child. Here we have little more to do than to second the efforts of nature. The alternate motions of the chest and of the muscles of the lower belly, in the act of respiration, compress in different directions the stomach and intestines; they aid in detaching the meconium, which is afterwards pushed out by the peculiar motions of that long membranous canal. Sometimes it happens that this excretion is not made the first day; and, as a long stay of this matter

might produce serious consequences, different means have been proposed to obviate it.

Oil of sweet almonds, obtained by pressure and without fire, good castor oil fresh, manna even, are substances the best adapted to fulfil the end which is proposed; but these simple and innocent means are useless in most cases, and completely superfluous for a child who has the good fortune to be nourished by its tender mother.

Commonly, when the child is brought to the fire, the heat, whatever may be the manner in which it acts on the bladder, provokes the evacuation of urine. When this effect does not take place, it is produced by gently pressing the belly with the hand from top to bottom.

SWATHING OF INFANTS.

After the first cares just mentioned, comes the clothing of the infant.

The first dress is called swaddling clothes.

When we think on the agility of the infant, on the pleasure which it manifests when (freed

from its clothes,) it can move its little limbs in all directions, it is evident that its covering ought to be sufficiently loose not to confine its motions; however, it is proper to observe a medium, in order to avoid its being chilled, which would happen if they were not drawn moderately close. The natural attitude of sleep being a bent one, that of the infant in its mother's womb not differing sensibly from it, the clothes should be drawn less tight when we wish to make it take rest, in order that it may more easily preserve the position which favors sleep. I would particularly advise mothers not to make the child's clothes so long as those usually worn. They ought not to be more than a *foot* in length below the infant's feet: thus the air will have access to the limbs, and render the little one more robust and healthy.

An essential precaution in dressing the child, is that there should be no seam along those parts of its body on which it may press when laid to rest, and which might produce results of an injurious character in a being so delicate and so frail. It is no less essential to substitute ribbons, broad enough not to form cords, for the pins which are

still too often used to secure the different parts of the child's dress; indeed, we find on record several terrible examples of the accidents which they have caused.

In the third month of life, or later, according to the season and the child's strength, its dress is changed by substituting, during the day only, for the swaddling clothes, a shorter robe, easy and of a material adapted to the external temperature: it is good that it should be open behind, and secured by ribbons. In this way its legs are at liberty, and their motions continually contribute to develope them and the strength generally. Shoes and stockings are almost useless at an early period; it may even be said that they are injurious, by rendering the child more sensible to the variations of temperature, which it must be trained to bear.

SLEEP OF THE CHILD.

After the new-born infant is properly clothed, it is well to consider the situation in which it ought to be placed; and particularly its bed.

This ought to be made of cotton, of soft down, or still better, of oaten chaff if it is sound and fresh.

Although perspiration is in general less abundant in a child than in an adult, it is no less certain that everything in reference to its dress should have for its object to favour that important function; and, consequently ought to be kept equally distant from extreme temperatures. The materials just pointed out for the composition of beds have this advantage over feathers and wool,—that they do not maintain a degree of heat too strong, and calculated to produce so much perspiration as to affect the child's health. Another and very important advantage also, particularly of beds composed of chaff, is, that they can be often renewed; since the natural excretions which continually wet the child, penetrate the linen with which it is covered, and saturate the bed on which it lies. It is useless to dwell long on the enumeration of the serious inconveniences which would result from the lengthened reception of those liquids, the exhalations from which would taint the air breathed by the new-born infant.

Such is one of the most frequent causes of the diseased state of children confided to careless nurses, inattentive to the duties imposed on them.

It would seem, at first sight, that the child's position in its cradle is a thing indifferent enough in itself; it is not so, however. If we reflect on the activity of the mucous system at the moment of birth, particularly if we think on the energy produced by the contact of air on the membrane which lines the interior of the trachea, and its divisions in the lungs,—on the quantity of mucus which then chokes it, which provokes in the child a kind of sneezing, or tonic shaking of the diaphragm and the muscles of the breast, in order to expel it,—if we think, finally, on the abundance of saliva secreted by the parotid, sublingual and submaxillary glands, it will be evident that it is not without strong reason that all writers have recommended to lay the child on its side. In fact, in this situation, it has much more facility in getting rid of all the fluids which so abundantly flow into its mouth; and which, if it were laid on its back, would naturally, by op-

pressing the trachea, oppose the important act of respiration, and provoke violent motions on the part of the respiratory muscles.

In observing the precept just given, care must be taken not to lay the child always on the same side: this would make it contract for life a bad habit, of which the consequences would not always be without danger. In fact, the pressure experienced by the parts on which the body rests, stops the circulation, and causes a numbness always inconvenient. This transient, but daily renewed impediment to the circulation, does not permit the parts which are the seat of it to keep pace in their growth with those which are always free; hence results a disproportion which lasts for life, and of which it is easy to perceive all the consequences. In a fit of sickness, the disadvantages of this bad habit are still more perceptible; when a patient is forced to keep his bed a long time, how much must he suffer if he is able to sleep only on one side, particularly if that side is the seat of the pain? It is, therefore, essential to accustom the child early to sleep indifferently on either side.

Physicians, who have written on the physical education of the first age, have long inveighed against an abuse which may have the most pernicious consequences. We mean the extensive practice of rocking children in order to produce sleep.

It may be remarked, in the first place, that a considerable development of the brain, and its great vitality, render dangerous every species of sanguineous congestion towards a pulpy organ, as tender as delicate. Another remark also, which it is important to make, is that, already, the digestive viscera are connected with the cerebral organs by the strictest sympathies, and that the least derangement of the functions of the stomach and intestines may act more or less powerfully on the latter. Now, what is the consequence when the child is subjected to the action of rocking, in the most usual cases, that is, immediately after taking nourishment? Its stomach, still distended with milk, is fatigued by the pressure of it, and the milk sours or alters its character, which provokes vomiting or violent gripes, calculated to produce the speedy ejection of a matter

which has become injurious. If digestion has been completed when the rocking begins, it produces a tendency of the fluids towards the brain; the blood-vessels, which ramify in great numbers in that organ, are distended and overloaded with a great quantity of blood, which compresses it; hence, springs a heaviness more or less profound, resembling natural sleep; and there is but one step from this torpor to convulsions,—a step not indeed often passed; but, as it sometimes takes place, this is sufficient to argue strongly against such an abuse. It is carried so far, that one is almost afraid to admit that, in some circumstances of sleeplessness produced by pain, a slow and mild shaking of the cradle may assuage it, and invite to sleep. In the majority of cases, no inconvenience attends leaving an infant at rest and at liberty in its cradle; the inaction of its senses will always sufficiently dispose it to sleep when it shall be neither constrained nor tormented by any wants.

The place which the cradle ought to occupy, in order to avoid a strong or unequal light coming to strike the organ of vision, is not

unimportant. Accordingly, in the day-time, it will be so arranged as to bring the light in front, if it is mild; behind, if it is strong; and never at the side. At night, when there is a candle in the room, the same precautions should be taken to protect the eyes of the child. Being naturally inclined to direct them to the side whence the light comes, it is evidently important to make it come directly to the eyes; otherwise, squinting might be the consequence; and it is well known that this is the most common cause of that disorder in vision. It is the same with the objects which may amuse the child; they ought always to be placed so that it may see them directly, without an effort. It is sufficient to have experienced the disagreeable sensation attendant on passing from a dark place into one strongly lighted, to perceive that the child should not be suddenly exposed to full glare, when taken out of the cradle, in order not to fatigue its sight, which requires to be gradually strengthened by moderate exercise. In order that the air may be easily and frequently renewed, the cradle ought never to be wholly covered; without this precaution, the expired

air would accumulate about the child, its respiration would be made with difficulty, and it would insensibly contract the habit of drawing breath more frequently; in other words, it would have a shortness of breathing, which might continue all its life, and which would certainly contribute to shorten its days.

As the mattress is liable to be soiled by the child's evacuations, it is advisable to have at least two or three of them, in order that one may be dried while the child is resting on another. It is only necessary to mention, cursorily, the serious accidents which might be produced by the objectionable habit of putting infants in a large bed, without some one to watch them carefully; but there is another abuse which requires a more impressive caution, namely, the custom of letting very young children lie beside persons, old or weak, or subject to particular complaints.

No person is ignorant that, at the time of its earliest existence, the child devotes to sleep almost the whole of its days. Habituated to rest in its mother's womb, it is awake, at first, only as long as the want of nourishment re-

quires; unless an excitement too strong for its delicate organs, or pain, which is the strongest of those excitants, forces it to violate this habit; but, as its growth increases, it becomes less a stranger to what is passing around; and the want of sleep makes itself felt only in order to rest its organs, fatigued by an exercise more or less prolonged. Hence, if it does not sleep at night, the simplest means of producing repose is to give it, during the day, as much exercise as it is susceptible of without pushing it too far. Its wakefulness is inconvenient, not only for the child itself, but also for the mother, who loses her rest, becomes fatigued; and long before her health visibly suffers, her milk becomes heated, and, given for nourishment in this state, is a fertile source of disease.

Of all the functions, the exercise of which constitutes the life of man, none yields more to the empire of habit than sleep; it is, therefore, important to put the child to bed, and take it up, at regular and fixed hours, so that at night it may awake only to take the breast, (when at an early period that may be thought necessary;) and to effect this habit, as has been said before,

without using any of the violent means which have incurred so much deserved censure. In no case ought cordials, anodyne syrups, or opiates to be given to put the child to sleep, as the slumber which they produce is always fatiguing, and injures the health in a manner more or less perceptible.

From what has been said, it naturally follows, that if the child does not sleep as soon as it is put into the cradle, it is because it has neither desire nor want of rest, or because some inconvenience annoys it. Either its clothes are too tight, or it is lying in its evacuations, or it wants nourishment, or is too cold or too hot, or in a word, is affected by pain. It will be seen that, by giving it what is needful, by remedying the evil which keeps it awake, we shall succeed better in our object than by any other means.

It may be mentioned as a general rule that it is proper to lay the child down a quarter of an hour after it has eaten or sucked. Then it goes to sleep naturally on its mother's lap, because its disposition to sleep is increased by the labour of digestion. It is a mistake to sup-

pose that if the baby sleeps in the daytime, this will prevent it sleeping at night: experience proves the contrary daily; for every one knows that the more one sleeps, the more one desires to do so; and there is no exception to this rule for any age whatever. Long deprived of nourishment, the little stomach of the infant is suffering, or else it is lying in its evacuations, or some other of the inconveniences already enumerated keeps it awake, and it only wants relief: let its wants be provided for, let it be freed from that which keeps it in a state of constraint, and its tears will soon be found to stop, its crying to cease, and sleep ensue.

As to the duration of the child's sleep, it should vary accordingly, as it is taken by day or by night. In the day-time, its state of health or disease, the variety of its wants and of its food, the quantity and quality of the latter, do not admit the establishment of fixed rules as to the time that ought to be allowed, but should be taken into consideration in determining how long it may be permitted to give itself up to this function. However, when, on awaking it with the requisite

precaution, it does not appear absorbed or sleepy, and is not cross, it may be concluded that it has slept enough; in the contrary case, it must be allowed to rest a little longer. As soon as it is awake, it should be carried about the room, or in the air if the season permits. In general, it is sufficient during the first months of life, to devote half the day to sleep, and it is necessary to diminish by degrees the length of time which is allowed to the child for that purpose, as it becomes stronger, so that at length it may be permitted to enjoy only a short mid-day slumber.

Under the specious pretext that the child is better in its cradle than anywhere else, there are nurses who leave them lying all day. The heat of the bed, the inaction of the body, the prolonged adhesion of the excretions to the skin, weaken the child and excite various eruptions, chaps, excoriations, &c. The child being able to move but feebly its arms and head, the other parts which are imprisoned in the swaddling-clothes remain weak, without force and without support; but, when delivered from its shackles, it agitates in turn, and often

at the same time, all its limbs; the circulation is better accomplished, the fibres assume solidity and resistance, the muscles are exercised by motions, the joints are accustomed to the free action which is necessary to them, in a word all the parts acquire vigour. This is, doubtless, sufficient to show that infants should be taken up several times a-day, and kept for a certain period out of bed.

Some infants have such a tendency to sleep, that they would do so even for four-and-twenty hours without cessation. It is therefore sometimes useful to awaken them; but it should be done gently and by degrees. At first their bed may be slightly shaken, their little hands rubbed and caressed, in order to excite a degree of titillation, which may make them disposed to gaiety. I am sure it would be superfluous to recommend the kind mother to present a smiling countenance to her child at the moment of opening its eyes, and thus make it smile. With these precautions dictated by the heart, there is no fear of the consequences, often serious, of awaking abruptly a little being whose nerves are so excitable that the slightest cause

is sufficient to produce the most frightful convulsions.

A good habit, which it is important to make the child contract almost from its birth, is to remain wide awake in its bed, even without any person being near it. One would not make this recommendation to a nurse; but a mother will derive great advantage from this method; since her little charge will not become timid. The same motive should lead to accustoming this delicate and weak being to hear every kind of noise without terror: hence, it is desirable never to appear alarmed before it, even at the noise of thunder; this is the more essential, as reason never completely obliterates the erroneous impressions received during infancy.

SUCKLING BY THE MOTHER.

To enumerate the inconveniences to be dreaded by the female who does not nourish her own child, will sufficiently indicate the advantages reserved for the good and tender mother who

fulfils that sacred duty. The accidents which follow accouchement, when the mother is not the wet nurse, may be referred to two principal heads, accordingly as the breasts, or some other part of the body, is the seat of them. On the third or fourth day after accouchement, the breasts secrete a sweet and abundant liquor: if the infant, for which this was designed, does not make use of it, it may remain in these organs, and distend them, if it continues to flow to them, or it may return to the general mass. In the first case, the milk, accumulating in the breasts, distends them so forcibly as to produce sharp pains, which deprive the female of sleep, and may have still more disastrous consequences; or the excitement necessary to the secretion of milk may, by the prolonged stay of that liquid in the organ, aid in producing an inflammation, which, if it is ultimately resolved, will cause not only intolerable pains, but also it may produce numerous abscesses of long duration, and always accompanied by intense suffering. There is also another mode of termination of the swellings of the breasts, no less injurious than the preceding. It sometimes

happens that they leave after them a small, hard, indolent tumour, which cannot be dispersed, and which becomes, at the period when she ceases to bear children, the germ of schirrhus or cancers, of which a painful operation does not always prevent a fatal return.

When the milk flows back into the general mass, it produces a plethora which it is sometimes difficult to remove, and very often gives birth to those numerous milk-diseases, against which the most varied means of art are too often inefficacious. Of this number is milk-fever, which in general is more moderate when the woman gives suck, and less liable to be combined with acute affections more or less serious. The inflammations, which are sometimes observed at the time of lying-in, are moderated, and even prevented, by the organic labor which the action of sucking keeps up in the breast. The uterus, already fatigued by the labor of accouchement, and the pregnancy which has preceded it, must also, in the female who does not suckle, give a passage to humors which would have flowed out by the breasts; it does not reject them with the same

facility as they flow to it; hence overcharging of the vessels, schirrhus, and leucorrhœa, abscesses, rheumatism, and the numerous series of chronic affections which have long been attributed to checked milk, are sufficiently accounted for by the increased action of the cutaneous system of the woman, who in general perspires abundantly, and thereby becomes more sensible to the action of cold.

Several accoucheurs have thought that there existed, between the constitution of the child and that of its mother, analogies which can be found only by chance in a nurse, however well chosen she may be. Others oppose this opinion, but they cannot dissemble that the *consistence* of the milk, not essential to the nourishment of the infant, increases according to its strength and its wants, which would be found only with a nurse brought to bed at the same time as the mother. The difficulties in choosing a nurse diminish still more the chances favorable to the existence of the new-born infant. It sometimes also happens that the latter is attacked with diseases, for the cure of which it is necessary to impregnate the milk with principles which alone

can effectually resist them. Who but a mother would then consent to confine herself to a regimen, which would impose on her the sacrifice of her tastes and inclinations? Who, besides, will have for the infant those minute cares, that tender solicitude, that attachment, of which it has so much need, from its weakness and its inexperience of life?

SUCKLING BY A NURSE.

It would be wrong to conclude, from what precedes, that it is my intention, with Rousseau, to inculcate suckling by the mother as an obligation for all women indiscriminately. Every day's experience teaches us that even the interests of the child require some mothers to renounce the office of nurse. If the female is weak, unsound, or attacked by any affections, whether contagious or hereditary, it is evident that great advantage will result from confiding the infant to the care of a young, robust, and healthy nurse. The causes, which oppose

suckling by the mother, may be divided into physical and moral.

Softness, flaccidity, and little excitement in the breasts, produce an insufficient secretion of milk, which may besides be of bad quality; irritation of these organs is liable to occasion the same ill result. In all cases when the evil admits of no remedy, the infant should, without hesitation, be committed to a nurse, or suckled artificially. Organic affections of the constitution, consumption, rickets, hereditary diseases, scrofula, tetters, scurvy, &c., are physical causes which absolutely forbid suckling. It is not the same with bad formation of the nipple, which may be remedied easily enough, by means which it would be superfluous to indicate here. The same might be said of pregnancy, and the presence of the menstrual discharge, which do not form a real obstacle, except in some particular cases; as, when the infant is declining, when it refuses the breast, when the milk appears to have deleterious properties. Acute diseases are, according to their duration, severity, nature and

complication, transient or absolute obstacles to suckling.

Among the moral causes opposed to suckling, must be placed the passions, which have a lively and quick, or a slow and profound action on the economy; because the one as well as the other remarkably affect the qualities of the milk. Accordingly, rage, sadness, envy, hatred, fear, jealousy, and grief, are obstacles more or less insurmountable to a woman's fulfilling one of the principal duties of maternity. There are also obstacles derived from the condition and social position of the parents; but they are much more restricted than is generally thought, and the daily practice in this respect ought to be discontinued, if the accomplishment of duty is to be a paramount object.

To point out the qualities which form a good nurse, and the cares which the infant requires from her, is to state the duties which ought to be fulfilled by the good mother, anxious to merit that title. A nurse should be young, from twenty-four to thirty years of age, sound, and one who habitually enjoys good health; it

would be advantageous that she should have lain in only a short time before the mother, in order that her milk may be as nearly as possible of that quality which nature designed for the infant. The breasts ought to be properly developed, and the nipples sufficiently prominent to be easily laid hold of and retained by the mouth of the child. The qualities of good milk are a slightly saccharine taste, no smell, a bluish colour, a sufficient consistence to make it adhere in little drops on a polished surface. However, it is useless to observe that these qualities may sustain modifications, principally depending on the time which has elapsed from the secretion of the liquid. Experience teaches that in proportion to the time after accouchement, the milk becomes thick, white, buttery, and sugary. Even when the nurse unites all the requisite qualities, the child should, without hesitation, be withdrawn, in case of derangement in her health, or if the child do not profit enough from the nourishment given. It is not unimportant to remark, that the abundance of the secretion of milk is not always in exact proportion with the size of the breasts.

If the mother who gives suck have not sufficient milk, it might be supplied by appropriate food without any disadvantage to the infant; because this inconvenience is more than compensated by the mother's suckling. A different conduct should be observed if a strange nurse is employed.

It is not sufficient that the nurse should combine the physical and material qualities just mentioned; she ought also to unite imperturbable mildness, much gaiety, a patience proof against every trial, and that tranquillity of mind which guards its possessor from the fatal agitations which have so marked an influence on the milk. It is difficult to form an idea of the extent of the influence which the temper of the nurse may have on the development of the intellectual faculties, and the direction of the child's desires.

The diet of nurses, inasmuch as it exercises a powerful influence on the physical qualities of their milk, ought to be an object of special attention. It ought to be composed of good, common, and simple articles of food, easily digested; soup, roast and boiled meats, ought to be preferred to salted, peppered, and spiced

made-dishes, and to smoked meats. The different kinds of pulse, mucilage, farinaceous substances, fish, fruits cooked or very ripe, are all excellent when the nurse has a good stomach, and is accustomed to eat them. As to salad and acid fruits, she will be permitted or forbidden to use them according to the disposition of her milk.

She ought to be absolutely prevented from the use of coffee and spirituous liquors. A moderate exercise, equally removed from too sedentary a state and from too much fatigue, cannot be otherwise than very favourable to her health.

An amorous woman, says Ballexserd, is not a good nurse; a woman almost without passions is required for this.

The place which the nurse inhabits is far from being indifferent, either for her or for the child itself. The habitation which deserves the preference, is a flat or slightly undulated country, where the air is pure, and in the neighbourhood of a wood, and the house a little raised so as to receive the first rays of the rising sun. Places near marshes ought to be carefully avoided; also stagnant waters, which exhale putrid vapours, humid valleys, &c. A resi-

dence in the country, says the learned author just cited, is the only thing which can partially indemnify children for not being suckled by the mother; especially those who inhabit large cities, who live in narrow streets, where the houses are high, and who live on the ground-floor; because the air there is always infected and unhealthy to everybody, and still more particularly to infancy. There is no doubt that it is injurious to the health of children to make them pass rapidly from the country, where they respire the pure air, to a great city, where they breathe that which is impure.

SUBSTITUTES FOR WOMAN'S MILK.

It is a serious error to consider milk as an article of food requiring little action on the part of the stomach to be digested. All observers know that it is scarcely introduced into the digestive organ, when it coagulates, and that the serum which forms one of its integral parts, is speedily absorbed; that no more remains except the cheesy matter, which requires much

time and action. This is so true, that, several hours after they have sucked, the stomach of young animals is still found contracted on a coagulum of a very resisting character, and scarcely at all altered. Children, whose digestion is painful, are pretty frequently observed to pass by the bowels balls of that substance, which is not penetrated by the digestive liquids, and which has therefore preserved its natural color. These reflections must shew how important it is to regulate the nourishment of children, even in the first months of life; a double advantage necessarily results from it, since the nurse will not be obliged to present the breast except at fixed and determined times; and since the child, when once a custom has been formed, far from crying in the interval of its meals, will wait patiently, understanding very well the moment when it is to take them.

It has been long a subject of discussion whether, in case it is impossible for the mother to suckle her child, the milk of animals is preferable to that of a strange nurse. A number of trials, varied to infinity, has proved that woman's milk has incalculable advantages over that of

animals; and that, if the latter sometimes seems to succeed, it is only in isolated instances.

The ingenious analysis made of human milk, and of that of domestic animals, by Professor Deyeux and the celebrated Parmentier, has demonstrated that that of the ass, and the mare, approach more, in their chemical composition, to that of woman, than the milk of the goat, the cow and the sheep. The simplest consequence which follows from this fact is, that in using animals' milk, the preference ought to be given to the milk which approaches most nearly to that which nature designed for the child. It is not so, however: whether from negligence, or the difficulty of procuring asses' or mares' milk, cows' and goats' milk are almost exclusively employed in the cases in question: to make their properties approximate as much as possible to those which they ought to have, they mix with them a sweetening and nutritious liquid: whey prepared without acid, and the decoction of sprouting barley are those which deserve the preference. From what has been just said, it may be inferred, that immediate lactation, when the goat is taken for the

nurse, offers perhaps more inconveniences than advantages. Indeed, if on the one side, the milk loses neither its taste nor any of its volatile parts; on the other, the buttery and cheesy parts, which predominate in its composition, require from the stomach a greater development of strength; which ends by fatiguing it, and by producing diseases, which do not always yield easily to the means recommended to resist them. In fine, the milk ought to be renewed twice a-day, kept from the contact of the air and in a cool place; the bottle which supplies the place of the breast should be washed at least every twenty-four hours: and the sponge, used instead of the nipple, ought to be cleaned as often as the child sucks.

CARE REQUIRED BY THE INFANT WHILE SUCKLING.

To nourish her children is a thing so natural on the part of a mother, that this function seems always to be performed without obstacles and without difficulties. However, it sometimes happens that the malformation of the nipples would present insurmountable obstacles, if art

had provided no remedy, and that giving suck may cause acute pains, inflammation and laceration. However, it would be unjust to accuse nature of all these evils. The inconsiderable prominency of the nipples is owing to the stays in which the chest of females is imprisoned from an early age,—to the hardness of the whalebone with which they are furnished, and to the continual compression which they exercise on the salient points of the breast, concealing the nipples in the body of the bosom, and thus rendering them unfit for the purpose to which they are destined.

To remedy the inconvenience produced by an ill formation of these extremities of the breasts, different means have been imagined, on the utility of which all writers are far from being agreed. It is generally admitted that these means can be of no service before accouchement, and that afterwards they may do much injury, notwithstanding what has been formerly written. The only precautions that can be of any utility, before the child is born, are lotions of marshmallow water, applied to the nipple during the last six weeks of preg-

nancy, in order to remove the thick humour which accumulates about it, and on its areola, poultices moistened with the same liquid, applied to that part, during the night, in the last weeks of gestation, are sufficient when the nipple is naturally long and salient; in the contrary case, it is also necessary to have the woman, after lying-in, sucked by an infant that has grown strong or by an intelligent person. The pipe and sucker of glass which have been imagined as a substitute for the means just pointed out, when that means fails, both have the inconvenience of fatiguing either the patient, when she draws her own milk, or the person who performs that office, and that without obtaining much advantage from it. This process may also excite sharp pains, and attract inflammation to the sensitive part operated on. A much better and more secure mode of forming the nipple is to use a soda-water bottle as a cupping glass. With this view, when she has been put back into her bed, and there are indications of the secretion of milk, the mother will be placed so as to be inclined forward, to make the breasts slightly pendant, thus causing

the nipples to protrude; and the bottle will be heated by pouring into it very hot water just before applying it. A person will be made to support the bosom by raising it a little, while another applies the bottle as hot as the nipple will bear, and keeps it firmly pressed on it. Care will be taken to give it an horizontal direction, that the nipple may project equally in all its points, and the operation will be repeated until it is sufficiently long, and continues to project after the bottle has been withdrawn. This requires also some precautions: it is necessary to press the breast mildly with the end of the finger, near the orifice of the bottle, which can then be very easily detached; if it were taken away abruptly, the nipple would not only be pulled, but would be in danger of being lacerated.

A question which has been several times agitated, and differently answered according to the opinion of each author who has written on the subject, is to know at what moment it is proper to allow the child to suck for the first time. Reason, good sense, and nature, unite in answering that, if the mother is well

recovered from the agitation produced by the accouchement, and if she feels herself sufficiently strong, she ought to give the breast as soon as the new-born infant opens its mouth, or when, on placing her finger between its lips, it closes them in the action of sucking. By this means, it easily gets rid of the matter retained in its intestines; and the mother, at the same time that her nipples become well formed, has less to dread those chaps and cracks which are so painful, and render so disagreeable the most amiable function which nature has imposed on women.

Two temporary obstacles to suckling render the most prompt aid necessary, no less for the child than the mother; namely, the overcharging of the breast, and the excoriation of the nipple. The former of these inconveniences manifests itself some days after delivery. To remedy it, it is necessary to suspend the suckling, and to cover the bosom with poultices saturated with an emollient decoction, or a cataplasm of the same nature, renewed every two or three hours: those of rice, flax-seed, marshmallow root, with the pulp of carrots,

are equally efficacious. Due regimen should be observed, and an emollient diet-drink taken, such as water gruel, pearled barley, with syrups of gum, marshmallows, or capillaire, until the general symptoms are calmed. Efforts will be made to unload the breast, and care will be taken not to present it to the child before the nipple is softened, and it has resumed its suppleness.

Excoriation of the nipple is an exceedingly painful and distressing obstruction, and is very frequently the means of preventing, for some time, the performance of this important duty, and thus becomes a fertile source of coagulation of the milk in the mammary gland, causing suppuration, and ultimately broken breast; it is remedied by washing the part frequently with warm marshmallow water, or some other emollient liquid, such as decoction of poppies and camomiles, and covering it with powdered gum arabic. Various astringent lotions have been suggested, as warm port-wine, alum and water, sulphate of zinc; but the one most serviceable is the nitrate of silver or lunar caustic dissolved in distilled water; it relieves the pain more quickly, healing the cracks more expedi-

tiously than any other, and possesses only one drawback, that of leaving an indelible stain on the linen, a circumstance in itself of little moment, as it is easily guarded against. Whichever application may be made use of, it ought to be carefully removed every time the child sucks; and to expedite the curative process, it is well to confine the infant as much as can conveniently be done, to one breast during the day, in order to afford the means employed time to produce their effect; a like respite for the other nipple on the following day, and thus alternately.

Whatever means have been employed to remedy the deformities of the nipple, as soon as some drops of milk come from it, the child should be put to it to suck. The best method of keeping the child in that position should unite the two advantages of fatiguing neither the mother nor child, and of enabling both to remain without changing posture for some time.

When the infant sucks, it will be good to examine if its mouth is full of milk,—if its cheeks are inflated, as well as the throat at the moment of swallowing,—if it makes water freely,

if the stools are easy,—in order to be sure that it takes sufficient nourishment. If the child has dry lips while sucking, and, when the nipple is withdrawn, if milk does not appear at the corners of the mouth, if the cheeks and throat are not inflated while sucking, it is certain that the child is drawing nothing from the breast, and that supplementary nourishment is requisite. Then it is necessary to suspend suckling, to keep up the suppleness of the breast, and not to give it again to the child until the milk is observed to be disposed to flow freely through the vessels of the nipple. This sometimes does not happen until the end of several days, but there is no need of despair; for it is certain that on the courage of the mother,—on the patience and intelligence of the accoucheur, success depends.

Fixed rules cannot be given as to the periods of the day and night at which it is proper to give the child the breast: all that can be said in this respect is that the eagerness of the child will serve as a guide on which we may rely. It is in all cases sufficient not to make it wait long for nourishment, nor to provoke it to take

any. It is needless to point out the disadvantages, for both child and mother, arising from the culpable habit, which too many have, of giving suck at all hours of the day, and thus overloading the stomach with nutritious liquor. They would act very differently if they were duly impressed with the importance of a truth, which the vulgar will never be convinced of, that *it is not what is eaten, but what is digested, that nourishes.*

If fixed rules cannot be given for the child's hours of taking aliment, there is an essential one which it is important not to omit; namely, not to rouse the infant from sleep under the pretext that its hour for food is arrived, because, suddenly awakened, it sucks with repugnance; its torpid organs are indisposed to the digestive process; the milk incommodes it; the infant rejects it, if strong enough; or, if retained, it is digested with difficulty. Besides, it is well known that the child, accustomed to take its meals at regular periods, awakes pretty constantly at those hours, because the stomach, of which the functions are all under the influence of habit, feels new wants. As well as in an

adult, the appetite may be felt by the child sometimes a little sooner, sometimes a little later; it will always awake when hungry; and it may be established as a general rule that, before taking nourishment, it should be thoroughly so, and symptoms of hunger should be manifested.

It will, doubtless, be thought that it is at least very difficult to distinguish those signs. Not at all; a little attention is sufficient. With its eyes fixed on the nurse, the child follows her about, and appears annoyed when she goes to a distance; it puts its fingers into its mouth and sucks them, or sucks its tongue, exciting the secretion of a great quantity of saliva, which is swallowed. If the nurse comes near the cradle, and puts her finger into its mouth, it eagerly presses it with its tongue and lips. If she uncovers her bosom, joy immediately sparkles in the infant's eyes; it moves, and rises as if it would spring from its cradle to seize more speedily the object of its desires. It takes possession of the nipple, and presses the breast with its little hands, to accelerate the flow of milk. By these signs, the nurse may be sure that the child is

hungry, and will digest very well the milk which is given to it.

Although it is impossible to establish fixed rules for the time at which it is proper to give suck to the child, we may take as a foundation certain particular circumstances. Thus, as it is a principle that new nourishment ought not to be taken until the last which has passed into the stomach has been digested; and digestion taking about three or four hours with children, that interval should elapse before giving it the breast again. For the same reason, the nurse should never give it immediately after her own meal; she should wait three or four hours, because then the chyle produced by her digestion having been perfectly mixed with the blood by the process of circulation, the milk will not be impregnated with the unmingled juice of the last nourishment taken, which might not agree with the child's constitution, and because it will be milder and more nutritious. It follows also, from hence, that the nurse ought to take at least three meals a-day, and that she would do better still by taking four. When the nurse has been long without

eating, for example six or eight hours, her milk becomes serous, yellow, and salt, and the child bears it with difficulty. To remedy these ill qualities of the milk, and to render its taste mild and sugary, it will be sufficient to drink, half an hour before giving the breast, some glasses of barley-water or of syrup of orange-flowers diluted in water. In cases where the nurse is attacked with any temporary malady, as fever, or agitated by any violent passion, anger for example, she should abstain from giving the breast. This is very important; for there have been numerous instances of children who have fallen victims to want of precaution in cases of this kind. If, from any cause, the nurse has been obliged to take aperient medicine, she should act in the same manner and from the like motive. The nurse's milk is then to be changed for cow's, goat's, or ass's milk, mixed with a decoction of barley-water, or something similar.

It sometimes happens that the child throws itself on the nipple, and sucks with extraordinary precipitation and greediness; the nurse ought to check its eagerness by squeezing the

extremity of the breast a little with two fingers, and by this means prevent the milk from escaping too abundantly; she should at the same time withdraw the nipple from its mouth. For want of this precaution, it may happen that, the infant being obliged to breathe while the mouth is full of milk, some drops of that liquid will pass into the windpipe and cause violent coughing. When this takes place, instead of striking the back with the palm of the hand as nurses do, the child's head should be bent forward a little, and it should be allowed to cough; by this method it will recover more easily, and there will be no fear of suffocation, which is greatly to be dreaded otherwise. If the fit of coughing is violent, a mixture of oil of sweet almonds and syrup of gum, or even a small quantity of warm sugared water taken in spoonfuls will soon relieve it.

If we believe nurses, when the infant without an effort throws up the milk which it has just taken, it is a sign of health. However, as it is certain that children vomit only from feeling uneasy and not being able to digest, it is necessary to defer giving them the breast again

until their disorder, whatever it may be, has disappeared, and until the stomach has recovered its natural force and disposition.

SOLID NOURISHMENT OF THE INFANT.

Milk is not long sufficient for the support of the child; as it grows and becomes strong, it feels the want of more substantial food. The period when this additional aliment becomes a matter of necessity, varies according to the child's strength, constitution, and want of nourishment. In general, it is at the end of the first month that it is proper to have recourse to it. It may be established as a principle, that the best thing to be done then, is to make ourselves sure of the state of the digestive organs by repeated trials, in order by degrees to accustom those viscera to the semi-solid nutriment which is presented to them. The nourishment most commonly used, to complete that which the child gets from its mother, namely pap, is not that which is most suitable. The flour which enters into its composition makes, with the milk, a kind of paste, very

compact, and offering resistance to digestion; it brings on the numerous gastric diseases so common with children,—frequent vomiting, acrid risings in the stomach, heartburn, worms in the bowels, &c. It has been proposed, to prevent these serious disadvantages, to roast the flour first, or to substitute for it rasped crust. These substances are preferable to flour; but they are not perfectly divided in the milk, and are difficult to digest. The fittest food for attaining the end in view, is crumbled bread, prepared with broth, for children who require abundant nourishment; with milk and sugar for others. It would be necessary, as far as possible, to avoid boiling the milk too much, as repeatedly doing so makes it lose some of its beneficial qualities. A simple infusion of soft bread, crumbled, is the best in this case.

It is necessary that the pap thus made, should be very thin when first used, and increased gradually in consistence as the stomach becomes accustomed to it. When the child has become stronger, it may have more solid and nourishing food, as well in order to vary the diet, as to bring the stomach insensibly to bear the differ-

ent substances which may be presented to its action. Vermicelli, the different farinaceous parts of potato, rice, sago, and rice itself, would be sufficient until the time of weaning. It is proper to observe that the pap, which usually forms the basis of the food of infancy, is often given by nurses in too large a quantity; they propose to themselves by this means to appease the children, and to render their crying more rare: they succeed, but how? The stomach being overloaded with that heavy nourishment, the digestion is ill-performed, congestion of the brain takes place, the limbs are languid, the tendency to sleep is irresistible, and the child yields to it. This is exactly what happens to the adult when there is repletion. As this means is infallible, recourse is had to it as often as the child is troublesome, without a doubt as to its well-being, which is concluded from its apparent tranquillity; and not a thought is bestowed on its being possibly in danger of suffocation, or on the fact that the expression of pain on its part has been rendered impossible.*

* In feeding a child, particular care should be taken not to force the food into the mouth whilst the child is crying, for

Sugar is the condiment most suitable to infancy. It is well known to incorporate much better with vegetable substances than with those of the animal kingdom, although, in our times, it has been united with meat jellies, broths, and several other culinary preparations. Milk mixed with a decoction of barley, rice, or crumbled bread, is the beverage best adapted for the time of weaning.

Provided the nurse has sufficient milk, that nutritious liquid might suffice the child during the first eight months of life, as has been established by Desessartz; but, for this the nurse should be young, strong, and healthy; otherwise giving suck would affect her health too much.

The proper method of feeding children is simple and easy in appearance, to which little attention is paid. Every one meddles with it, but few do it well. It would be superfluous to dwell on all the faults of the mode

in this case the food is apt to pass into the wind-pipe, and thus occasion instant suffocation. Should such an accident happen, the best thing to be done, is to place one hand on the back, and with the other give a smart blow on the chest, which will cause vomiting.

usually followed, and which often exposes them to the danger of losing their lives by suffocation or the rupture of a vessel. To state what ought to be done to avoid those disasters, will sufficiently indicate the defects of the common practice. The child, when old enough, should be placed between the knees and legs of the person who is to feed it, the body and head supported by one arm, so that the head shall neither bend towards the breast nor incline back on the shoulders. The child being thus situated, the extremity of the spoon containing the nourishment is to be put on the lower lip and gum, and the hand raised gently and patiently, so that the child may suck towards itself the food presented to it. By this method two decisive advantages are obtained; one, that the saliva will be expressed, and, mingling with the food, will make it of easier digestion; the other, that small quantities of nutritious substances will be gently conducted to the throat, to which they will be gradually pushed by the successive application of the tongue to the palate, so that the child will swallow them without pain and without the

danger of being choked. Care will be taken not to give a new supply until the first has been entirely swallowed; in this way the child will eat willingly and without being tormented. It will be easy to perceive when it has eaten enough, and there will be no risk of giving it too much in spite of itself, because it will have the power of rejecting with the tongue the nourishment which it does not require; whereas, when the child is laid on the back, it is forced to swallow all that is put into its mouth, unless it makes violent efforts to reject it.

As it is proper by degrees to accustom the child's stomach to half-solid food, it should, at first, be given to it only once a-day, and the best time will be about an hour before noon, because the period of sleep will be more favourable to the digestion. It is also proper that the consistence of the food should be successively increased, and that at first it should be almost liquid. After some days, if it is observed that the child digests the new nourishment well, that its belly is not in a state of tension, that it has neither constipation nor diarrhœa, it may be fed twice a-day, morning and evening, but

never more before it is weaned. There will be no disadvantage in giving it the breast immediately after this little repast, only it must be observed that it is not to be allowed to take more than a few mouthfuls of milk, as a greater quantity would provoke vomiting.

It often happens that the child's bowels are confined; it results from agitation, colic and want of sleep; and if the constipation is not speedily relieved, the evil increases, the disorder becomes more considerable, and a confirmed disease succeeds to this irregularity.

It is necessary then to have recourse to injections, which may be simple or compound. Simple injections are those in which nothing but pure water is employed. The others are made either with thin gruel, barley-water, or warm milk, to which may be added either a little olive, almond, or castor oil, the yolk of an egg or brown sugar, as occasion may require. The manner of administering them, and the instrument for that purpose are things not so indifferent as might at first be imagined.

Pipes of gum elastic for some years have been employed, fitted into a syringe. They are

about five or eight inches in length, which present sufficient resistance to be introduced with facility, but which, yielding to the least solid obstacle, can never wound, in whatever way they are introduced, or whatever motion the child may make during this operation. A very simple and convenient little apparatus, is the Indian rubber bottle with a pipe attached to the end of it, and which now is very much used; the mode of injecting is so well understood, that I shall merely observe that the quantity must be proportional to the child's age, and should be thrown up gradually, for if the water is driven in too quickly, and copiously, the remedies are far from producing all the good that may be expected from them; the intestines, doubly irritated, contract immediately, and speedily reject the water, without effecting a proper evacuation. Finally, the last care to be taken is to keep the syringe or bottle always full, in order not to drive a column of air into the bowels, either before or after the water, which would cause colic and provoke efforts attended with no result.

WEANING.

It remains to speak of weaning, which consists, as every body knows, in taking an infant from the breast and supplying the place of the milk by more solid nourishment, calculated to satisfy greater wants. The period of weaning varies according to the constitution of the mother and that of the child, the precocious or late teething, the nature of the milk, and some other circumstances. In general, lactation, is scarcely prolonged beyond a year;* it may be abridged if the child is strong and vigorous, and, on the contrary, prolonged when it is weak and delicate, when the teeth are slow in appearing, when the milk is the nourishment that best agrees with it. Weaning should not be accomplished abruptly; it is useless to enumerate the ill consequences of such a method, since every nurse knows that in ceasing gradually to give the breast to the child, her health is the

* When a child has got four teeth, two in the lower, and two in the upper jaw, it may generally be weaned with safety; and this is a very good criterion.

better preserved, that the pretended anti-lacteals become useless to her, and that the child is saved from hectic fever and from the decline which frequently follows an opposite method.

Physicians are still divided in opinion as to the food most proper to replace the milk at the period of weaning. Here also there are differences resulting from the child's strength or weakness, its disposition to certain diseases, such as scrofula, rickets, the place which it lives in, and some other particulars. As an exclusive animal regimen is fit for very weak infants, exempt from irritation of the digestive organs, so it would be pernicious with one whose flesh is firm, and who is fresh coloured, who digests the milk well, and who is but seldom affected with the diarrhœa so common in the first age of life. The chemical composition of vegetables in fact approximates much more to the mucous nature of the organization of infancy; and if they excite a little more action on the part of the stomach, that disadvantage is balanced by a stronger and more durable assimilation occasioned by the entrance of newer juices into its organs.

One of the articles of food which agrees best, when the child has been weaned, is the bread-cream recommended by physicians; it is thus prepared:—Well-baked bread is dried in the oven, and afterwards steeped in water for some hours; then it is boiled in a sufficient quantity of water for eight hours; as it thickens warm water is poured in. While it is boiling, a little sugar, and some drops of orange-flower water are added, and the whole is afterwards strained through a sieve; milk and broth may be substituted for water in this composition; only it is necessary to observe that too long a boiling would make their principles approximate too much, and would produce a heavy food, difficult of digestion. This inconvenience may be obviated by beginning the preparation with water, and adding milk or broth only in proportion as it thickens. It is important to remark, in conclusion, that pap, made as it is usually composed, succeeds very well with some children, in whom the use of pure or turned milk would produce colic or diarrhœa, which then yield to the use of the food which has been before condemned.

We may observe that, after having eaten raw fruits, a kind of fulness is felt in the stomach, caused by the extrication of the air which they contain in great quantity. Red fruits form the only exception. If it is considered, that an infant requires to be treated with the same caution as an adult in a state of convalescence, it will be inferred that these productions of the vegetable kingdom by no means agree with it, and that it is essential to remove from them, by cooking, the bad qualities which they possess. This point of the alimentary regimen of infancy is so much more important, as, generally, fruits are considered very wholesome nourishment, and as they are hourly lavished on children indiscriminately: scarcely can they walk, when they run to the garden, and collect there all the fruit that they find, without distinction, whether green, rotten, or wormy. This indiscretion is one of the common causes of the worms which not unfrequently torment them.

If the abuse which has just been remarked is more common in the country, the city folks need not therefore be envied, considering the

sweet trash and pastry with which children are stuffed as soon as they can eat. Mothers and governesses often have their hands full of cakes, biscuits, comfits, sweet-meats, little means very convenient to conciliate the affection of the children, but which, at the same time that they encourage excess, ruin the stomach, which is not sufficiently strong to digest them. Pastry unites, with the vices of common pap, the rancid acridity of the butter which forms the paste, and very frequently excites in the throat an intolerable pricking. Comfits are only thickened juices of a viscous consistency, made harder by the mixture of sugar. Finally, most fruits which enter into the composition of sweetmeats, and particularly almonds, contain oils always more or less inimical to digestion. All this is, therefore, not fit to form a good stomach, and ought to be severely proscribed from the regimen of infancy, when strong and healthy children are desired.

When the child is weaned, some people have a bad habit of giving it wine, under the pretext of strengthening it. In medicine, this liquid is rather regarded as a remedy than as a common

drink. Nevertheless, the employment of it has become so common that it is difficult to hope that, in spite of all the evils which it causes, men will renounce the use of it. Far from strengthening children, as is pretended, it excites too much the strength of the stomach, and consequently brings on disorder in its functions; and what proves it incontestably, is, that those who drink much wine in their infancy, grow little. Whether more rationally than we, or from difficulty in procuring it, the ancients did not permit the use of it except at the age of manhood. A final observation, on the regimen of infancy, is, that it is necessary to accustom children, no matter what may be their prospects, to live on common and homely food, because temperance alone can form great men in any department of excellence.

EXERCISES OF INFANCY.

In consequence of the inferior development of its lower limbs at the period of birth, the child, instead of the exercises of walking,

standing, and those combined of both, is susceptible, during the first months of life, and often, even during the whole of the first year, only of communicated motions. There are two kinds which more particularly deserve to fix the attention,—the cradle, of which we have treated in the chapter on the sleep of the child; and the manner in which the child is carried by the nurse, whether in taking a walk, or in the house, when she wishes to appease its crying. We know the little solidity of the vertebral column in the first months after birth: hence, it is incapable of sustaining the weight of the parts which rest on it, and particularly of the head, of which the volume is proportionably considerable. The child ought, therefore, not to be held on the nurse's fore-arm; on the contrary, it should be half lying down on the two parts which compose the arm; so that the head should not be abandoned to its own weight, and so that all the parts, which weigh on the vertebræ, should be conveniently supported. Children have been seen, with whom the progress of ossification was very slow, contracting, after having been long carried on the

same side, a lateral curvature of the trunk, caused by the continual pressure of the woman's body against which they had leaned. The best means of avoiding this fatal result is to vary the child's positions, and above all to carry it sometimes on one arm and sometimes on the other. In the course of the first year of life, there is an imprudence which we see daily committed —that namely of tossing the child up in the air, which may produce consequences much more disastrous than is generally thought. Besides that it may happen that the child might escape from the hands, and fall from that height, it might often also hurt its mother with its feet by pressing or striking the breast swelled with milk, and so become the remote cause of a cruel disease, which is not developed until long afterwards, although, at the moment, the woman feels only a sharp pain, which leaves her destitute of strength at the time.

It is about the end of the ninth month, at farthest, and very often sooner, that children begin to be taught to walk. In general, this part of their physical education ought not to be thought of until after weaning, because, pre-

viously, the hips and parts which have to support the weight of the body, have scarcely acquired sufficient strength to prevent the fear of occasioning, by premature exercise, deformities of which the remedy is difficult. It is advisable to allow children to roll on the carpet, until they take to their feet without assistance.

The use of leading-strings, in these first attempts, is objectionable; because they raise the shoulders too much, and often in an unequal manner; also, because the children, feeling themselves supported, acquire a habit of leaning the body forward, or on one side; and because they may thus contract a bad habit of walking, which brings on insensibly a vicious conformation of the vertebræ: however, leading-strings might be reserved as a means of assistance on the pavement; it will then be sufficient to hold them loose. On the whole, it is easy to dispense with them, and it is much better to teach the child to walk by itself. For this, it is sufficient to present to it, at a little distance, something which pleases it; the desire of possessing this makes it forget the

danger of going alone; it runs the risk, and, although tottering, yet arrives. The experience of every day shows that, by this process, the strength is speedily developed, and that the child soon walks, provided he is not exercised in it too soon.

CLEANLINESS.

In the first period of his existence, cleanliness is, for man, not only an affair of convenience and pleasure, but a most imperious necessity; it is an essential part of the care which the mother owes to her child.

Often the thighs, loins, and adjacent parts are scalded by the contact of acrid matter; hence, it is essential to recommend expressly to nurses to see, from time to time, whether the child wants changing, and if so, to do what is required.

All the napkins which have been soiled should be properly washed in lyes; if they were merely cleaned and dried at the fire, there would remain, between the fibres of the linen,

some particles of excrement which, by their smell or their chemical action might inconvenience the child.

Instead of wiping the child roughly, it would be better to wash it mildly with a fine sponge steeped in tepid water, for the first few days; but, later and subsequently, water at the temperature of the apartment would be better. After having fomented for some minutes, the liquid should be absorbed, not wiped, with a piece of soft linen. Every morning, that is, once a-day at least, the face, head, and behind the ears, should be washed; children whose nurses take this precaution are always well.

Being incapable of doing any thing to satisfy its own wants, the child should find in its mother, or nurse, a sure guide to provide for them: it is she, therefore, whom it is necessary to address as to all that concerns its growth, and the preservation of its health. Ought the daily ablutions, designed to keep the child's skin clean, it being perpetually soiled by the evacuations, to be made with cold or hot water? This question has long divided medical men, and even now does not appear to be

capable of being resolved in an absolute manner. All physicians know that cold, in the first months of existence, is one of the most certain causes of the cruel disease known as "hardening of the cellular tissue." This consideration alone would be sufficient to banish baths of low temperature, if it were not in the power of art to prevent so fatal a result; this end is attained by gradually accustoming the child to the contact of cold water, by diminishing the temperature of the bath by degrees, as it gets strength and growth; in this way, as Tissot has shown, and as experience has often demonstrated, weak children soon acquire strength, while the effect on very robust children is scarcely perceptible. I have often advised this course, and always with success.

With reference to cleanliness, the head of the child requires special attention. Every morning, it should be bathed with lukewarm water, and afterwards dried with a piece of linen very dry and soft; after which the dandruff will be detached by means of a soft and very fine brush.

On coming out of the bath, when the child

has been well wiped, all the parts of its body should be lightly rubbed, either with the hand or with a brush made of badger's hair; this friction should be continued for five minutes. The nurse will also press her hands as if squeezing out something, on the reins, arms, thighs, and legs, proportioning the force of the compression to the child's strength. The lower belly should be pressed with the two hands in different directions. By this trifling operation, action is given to the muscular fibres, the passage of the humours is facilitated, the overcharging of the mesenteric glands is prevented, in a word, the want of that exercise which the child is unable to take, is supplied. The better to perform this friction and shampooing, it is proper to place the child on its bed, with its head a little raised.

MEDICINE OF INFANCY.

ACCIDENTS OF TEETHING.

In the fœtus, the jaws are closed all along their outside edge, but their interior conceals a range of little membraneous follicles contained in the alveoli and separated by thin partitions. These little follicles are enveloped by a membrane, very analogous to those which anatomists call serous, and contain a pulp which is penetrated by nerves and vessels. It would be difficult to determine the precise epoch at which the membraneous follicles are formed. It is in the fifth month of gestation that those of the first teeth are developed; at birth these teeth are very forward, the whole upper part is formed, and the root exists in the form of a pipe with very thin sides. The progressive formation of the teeth takes place in the following order: at

first the pulp, which is the most considerable part; afterwards the osseous substance; the head is developed much sooner than the root, which appears only in proportion as the ossification proceeds.

There is no perceptible change in the jaws until the fourth month after birth; but at that period, their organization becomes more apparent; the alveolar cavities are prolonged, the tooth acquires new dimensions, and a little later, no longer being able to be retained in the alveolus, it rises, presses, and, in the end forces, the alveolar portion of the membrane, the pulpy tissue of the gum, and the mucous membrane of the mouth which covers it. No one is ignorant that these first teeth, called milk teeth, or infant's teeth, are destined to give way to others, about the age of seven years, which are designed to last the whole life, and that they are generally smaller and fixed less firmly than the latter. They are almost always twenty in number, ten in each jaw, of which four are incisive, two canine, and four molar. It is usually in the sixth or ninth month of life that the teeth begin to appear, which they do in

the following order, except in some anomalous cases: the two middle incisors of the lower jaw, the two corresponding teeth of the upper, the two lateral inferior incisors, then the two similar superior; the two lower angular teeth called canine; followed by the two eye-teeth or upper canine; lastly, the molar, which issue forth in the same order as the preceding: and, about the fourth year, according to some authors,—at the sixth only according to others,—appear four new molar teeth which are to remain. Although the teeth generally are developed in the order just pointed out, there are some exceptions in which the order is inverted; then the teething may commence by the lateral incisive, the canine, and, much more rarely, the molar; it may take place at first in the upper jaw, and, in very rare cases, they all come out together, which is attended with the greatest danger.

The principal phenomena which are observed during dentition, but which, however, may appear without any of the teeth shewing themselves, are,—a little heat in the gums, a slight salivation, a more or less painful titillation, which

makes the child often put into its mouth its fingers and every thing it can lay hold of, and makes it squeeze, when sucking, the nipple of the nurse; a thirst more or less violent; widening of the circular edge of the gums, itching in the nostrils, sometimes frequent sneezing, a deep red in the cheeks alternating with paleness and confined to one side, a moderate laxness of bowels, increase in the quantity of urine, a disposition to impatience, proneness to weep, nocturnal frights, startling, sardonic grin during sleep, cries, sudden awaking. As the dentition proceeds, the gums increase in size, their sensibility becomes more acute, their natural red colour deepens. The point of that membrane, which corresponds with the tooth ready to pierce it, whitens: the enlargement of the gums, always itchy and sometimes painful, is accompanied in some particular cases by a slight swelling of the face and salivary glands.

In most cases dentition ought to be left to nature, and art should content itself with prescribing a regimen adapted to the state of the child. If it is brought up at the breast, and the nurse has sufficient milk, that will be

enough for its support; only it will be necessary to give it more frequently, but for a shorter time at once. By that means the mouth will be kept constantly moistened with an emollient liquid, which is the fittest of all to promote the appearance of the teeth; if the nurse's milk is scanty, or of bad quality, if the child has been brought up by hand, the want of nourishment may be supplied by bread and milk or rice-milk, a mixture of cow's milk and emulsion, sugar and water, &c. It will also be proper to promote the sleep of the child by silence, the darkness of the place which it is in, and a slight motion of the cradle. If there is a looseness, it should be checked only so far as that it may not fatigue and weaken the little patient; then, injections with a decoction of bran, rice, or flax-seed alone, or mixed with a small proportion of oil of olives, or sweet almonds, would be preferable to syrups of rhubarb, quince, &c., recommended by some authors. In case of constipation, the juice of prunes with honey, oil of sweet almonds joined with that of castor; injections composed of manna and senna, are almost always sufficient

to overcome it. The mouth of the child ought to be particularly attended to at this period of its existence. The abundance of saliva which nature then causes to flow from the glands, destined to secrete it, seems to indicate the necessity of softening the gums to promote the issuing forth of the teeth. There are many means of doing this: the best are friction with the fingers dipped in mucilage, with a stick f liquorice or prepared marshmallow, which will always be preferable to coral, notwithstanding all that can be said by its advocates. Indeed, that instrument, generally mounted with gold, silver, ivory, or crystal, has the serious disadvantage of hardening the gums, making them callous, and consequently of causing much greater resistance to the teeth which are to pass through them. It would be suitable only when the membrane of the gums, having become very thin, is scarcely at all painful, and even then it is not so good as a crust of dry bread, or bread spread over with good honey, jam, &c.

To form an idea of the dangers which are run by the child who is teething, as it is called, it will suffice to say that it is calculated that one-

sixth are carried off by the accidents which affect that period of life. Some words on this subject will terminate what I have to say on dentition. The abundant flow of saliva, the painful swelling of the gums, with enlargement of the parotid, sublingual, and submaxillary glands, tumefaction of the whole face, watery eyes, trembling of the eyelids, irregular eruptions of the skin, are all indications that the dentition will be difficult. To these are frequently added inflammations extending to the principal viscera, and rapidly terminating by suppuration or gangrene; convulsive motions which, at first confined to certain parts of the face, soon propagate themselves to the other parts of the body; fever, sleeplessness, frights, agitation, delirium, &c., are the most common complications of that state, when it is about to terminate by a terrible catastrophe.

When the inflammation of the gums is intense, and tends to propagate itself, mucilaginous ointments, mollifying drinks, the milk of a good nurse, are the fittest means to appease it. It is proper also, in this case, to maintain free action in the bowels, and to make

the child breathe air loaded with aqueous molecules.

Vomiting may be provoked by general over-excitement of the whole economy; then leeches are perfectly appropriate. Their effect is promoted by suppressing a part of the usual nourishment, by putting little into the stomach, and by using bread or rice-cream, if it bears them better than drinks: in the contrary case, softening syrups of gum, or marshmallows, succeed very well. If the vomiting is nervous, antispasmodic and calming remedies, such as water, or syrup of orange-flowers, infusions of tilia, honeysuckle-flowers, distilled waters of a sedative nature, such as that of lettuce, are therapeutic agents to which it is proper to have recourse. Bathing of the whole body commonly succeeds in both cases.

I have before shown how we are to remedy diarrhœa and constipation, very usual attendants of teething. Nervous cough, as well as difficulty of breathing, which are observed when dentition is slow and difficult, are cured by frictions on the internal and upper part of the arms under the armpits, and on the lateral

parts of the thorax and neck, with half a dram of Sydenham's liquid laudanum. If the cough is caused by embarrassment of the stomach, which is observed by the absence or lowness of the fever, by the indolent swelling of the epigastric region, by slimy stools, particularly during digestion, &c.; emetics, although fatiguing to the little patients, relieves them much. When the irritation of the gums is propagated to the organs contained in the thorax, all the symptoms of an inflammation of the chest soon appear, and the only way to prevent a fatal termination, is to apply some leeches to the skin which covers that cavity. Agitation, sleeplessness, sudden terror, and panic frights, to which the child is liable during teething, require leeches, baths, sedatives or evacuants, according to the cause which produces them. It is so much the more essential to give great attention to these alarming symptoms, since they are frequently the forerunners of convulsive motions, which are the most formidable of the complicated symptoms of dentition.

The convulsions, which sometimes attend teething, are not always so serious as is com-

monly believed; they usually appear at the time of cutting the molar teeth, and particularly attack children who are weak, exhausted, and who are endowed with extreme mobility. Those who are strong, large and fat, are not always exempt from them, and when these are attacked, they are more intense, and the children sooner sink under them. Convulsive motions which are confined to the face and the upper limbs, when they are separated by long intervals, and there is no anomaly either in the symptoms or in the progress of the disease, are not very dangerous; these are the most frequently observed. When, on the contrary, the attacks succeed each other rapidly, with much energy, and are attended with loss or suspension of the senses, there is reason to dread a fatal issue, and the life of the child is in the greatest danger. Paralysis and apoplexy are sometimes the termination of the cruel disease I am speaking of. The treatment should be regulated according to the state of the child's system. Tepid baths and half-baths, leeches, sedatives, antispasmodics, are suitable accordingly as there is fever or not, nervous

excitation or sanguine plethora, sharp pain or difficult eruption of the teeth, &c. In all cases it is for the physician to decide to which of these means the preference should be given.

Opinions have long differed on the advantage or inexpediency of lancing the gums in cases where they oppose too strong a resistance to the progress of the teeth. Notwithstanding all that has been advanced by writers of a contrary opinion, it is certain that the surgical operation which I now speak of is in some cases the only resource possessed by art to rescue the infant from certain death. This means ought to be used as a remedy in case there is reason to presume that the symptoms will be aggravated if we do not resort to it. Hardness and tension of the gum, tightness of the upper edge of the alveoli, narrowness of the passage by which the tooth is striving to come out between two that have already appeared, and which confine it, are so many obstacles rendering the operation necessary.*

* Many persons object to the gums being lanced, because they labour under an impression that they heal up again, causing what they term a seam, and that therefore they are

VACCINATION.

All ages, all circumstances of life, all seasons, are equally fit for, and favourable to, vaccination; however, as the slightest disease always brings on irritation of the nervous system and fever, which may sometimes have an influence on the whole economy, it has been thought proper to assign certain rules in relation to age, season, and state of health. I will give a brief account of them. Experience has shown that a person may be vaccinated successfully from the moment of birth to extreme old age. However, it is to be remarked, that, in the first

harder to cut afterwards; but this is a very erroneous idea, inasmuch as though they may heal again, they are nevertheless easier to cut, because it is a well known pathological fact, that new matter gives way more readily than old. Others expect, that because the gums have been lanced, the teeth will come through immediately, and finding this not to be the case, they express their disappointment: but I wish to impress upon such person's minds, that this little operation is not had recourse to, with any such view, it being performed merely to relieve the extreme irritation, and it sometimes happens, that the gums require it several times before the teeth make their appearance.

two months of life, the operation succeeds with scarcely more than one-third of the children submitted to it, which depends on the spongy state and gelatinous nature of the skin at that period of existence,—circumstances which diminish the activity of absorption, a function on which the success of the insertion of the vaccine matter entirely depends. At ten weeks or three months old, the skin having lost its softness, and absorption being carried on with greater energy, the operation fails less frequently; but from five to seven months is the most successful period, and, after that, the younger the vaccinated person is, the less will the health be affected when the pustules become developed.

It is a rule, that if a child be sufficiently strong to live, it is sufficiently so to bear this operation. Neither pregnancy in women, nor menstruation, are impediments to vaccination, which a great number of practitioners have performed under those circumstances. Although in general it affects, in a manner scarcely sensible, the state of health or disease of the individual operated on, it is

prudent, except in urgent cases, not to inoculate the child except when it enjoy satisfactory health. In London, teething has never been deemed an obstacle. It seems to some even to be more easy during that period; this has been so frequently observed, that zealous partizans of cow-pox have thought it acted directly on the appearance of the teeth and accelerated them. The seasons have little influence on this operation; it extends only to retarding or accelerating the development of the pustule, so that when the heat is great, we may take vaccine matter from it for inoculation on the sixth or seventh day; whereas, if the weather is very cold, it is necessary to wait till the tenth, or sometimes even longer.

Although a single pustule is sufficient to protect an individual from the attacks of small pox, it is prudent to insert the lancet in three or four places in each arm, in order that if some remain inert, as sometimes happens, we may not be obliged to resort to a new operation, which although very simple, is nevertheless unpleasant, both to the parent and the child. An important

following phenomena are observed:—enlargement of the pustule, tension, swelling of the edges, which are of a grayish white, in consequence of a more considerable accumulation of the vaccine matter, a deeper tint in the central depression; and the very narrow red circle, which circumscribed the pustule, loses its intense redness, and extends itself a little. On the ninth day, there is an increase of all the phenomena which had appeared gradually up to the preceding day, and the areola appears. On the tenth, the areola extends itself, and, if there are several pustules at the distance of about an inch, their areolæ become confounded, and form a patch which sometimes surrounds the whole arm. When that part of the skin which is occupied by the areola thickens, it projects on the arm and is called the vaccinal tumour. Usually there is then felt a pungent heat, a strong itchiness in the parts operated on, heaviness in the arm, sometimes a pain in the glands of the armpit, rarely nausea, and still more rarely vomiting; slight febrile symptoms, indicated by pandiculation, yawning, alternate paleness, and redness in the face; the pulse

is accelerated also on the tenth day, but the patient is never obliged to keep his bed. At the end of the eleventh day, the inflammatory period expires, then the pustule, which is raised one or two lines above the surface of the skin, and presents a diameter of from two to five lines, is hard to the touch, and offers the resistance of a body which should be strictly united to the skin by deep roots; its colour is pearly.

3d. On the twelfth day, the central depression assumes the appearance of a crust; the liquid contained in the pustule is turbid, and assumes an opal colour; the areola grows pale, the epidermis peels off. On the thirteenth, the circular swelling grows yellow, and contracts according as the desiccation takes place at the centre; it is entirely emptied, and lets a turbid, yellowish, puriform liquid escape, if opened; it is surrounded by a purplish circle. On the fourteenth day, the crust acquires a hardness equal to that of horn, and a colour like barley-sugar; the circumscribing circle diminishes in breadth. After that day, the crust gradually becomes solid, hard, polished, and

smooth to the touch; it takes a deeper colour, approaching that of cashew-wood; it at length falls off, on the twenty-fourth or twenty-fifth day, leaving exposed a deep cicatrice, with little spots scattered on it deeper than the rest of its extent, and similar to the depressions seen on honeycombs. Although, in most cases, the vaccine infection is developed as I have just shown, its progress is not always so invariable as that no irregularities are seen. For example, the period of inertia may be prolonged to the tenth and twelfth days, and at other times may last only thirty hours. Sometimes the central depression of the pustule is entirely wanting, which does not prevent the preservative effect of the inoculation.

In general, we may consider that a certain infection has been secured, which will surely prevent small-pox, when, after the third day, the inflammatory symptoms begin to appear, when the circular swelling exists around a central depression, when it takes an argentine colour, when it is surrounded by an areola, when circumscribed elevation and induration of the skin occupy the base of the vaccine pus-

tule and of the areola, when the lymph contained in the pustule is clear during the whole of the inflammatory period; then, whatever may be the subsequent circumstances, the vaccination will have for its certain effect the preservation from the variolous contagion.

It is not sufficient to know all that constitutes true infection; it remains also, in order to complete our knowledge on this important subject, to learn what are the characters of *false* vaccination, which does not preserve from the small pox. There are two varieties which it is essential to know how to distinguish: one takes place in individuals who have already been attacked by the small pox, the other is the consequence of physical irritation in a vaccinated person, without his having been previously so affected. The following are the distinctive characters of both.

On the first day, and at latest on the third, the puncture is inflamed, there is formed almost immediately a vesicle usually irregular, sometimes pointed, but most generally round like the true pustule. Its edges flat, unequal, are not swollen by the matter which, always little

abundant, yellow and limpid, gives colour to the vesicle. The areola does not constantly exist; it is sometimes as deep, rarely as extensive as that of the true vaccine; it lasts as long, but appears earlier. During the whole affection, there is intolerable itching, pain in the armpits, sometimes swelling of the glands of that region, very often pains in the head or attacks of fever. The crust, formed on the seventh or eighth day, scarcely ever falls until from the twentieth to the twenty-fourth, like that of the real infection; it sometimes exhibits the same appearance, only it is less broad and thick, and, instead of a cicatrice, merely leaves a spot on the skin. The vaccinal tumour is totally absent; sometimes its place is supplied by a simple tension about the wound, which is always irregular and superficial. Such is the progress of vaccination in persons who have had the small pox, when the puncture made by the lancet charged with matter has not remained completely inert.

The second variety of *false* vaccination may be produced at will by putting in action one of the following causes; first, inoculation by means

of a lancet charged by vaccine matter; secondly, the employment of vaccine fluid too advanced and come to a purulent state; thirdly, employing matter put on the glass without being sufficiently diluted; fourthly, the use of an instrument badly set, and not well pointed; fifth, and lastly, deep incisions.

The phenomena of this variety of *false* vaccination are:—on the second day, and sometimes on the first, an elevation of the portion of the epidermis in which the insertion has been made, a deep redness and a puriform running at the labia of the wound. The next day, the redness has sensibly diminished, the portion of the epidermis is white, more salient than the day before, and a slight redness constantly invades the cellular tissue which circumscribes the little wound. On the third day, the pustule of the *false* infection, raised to a point, breaks and gives out an opaque, yellowish pus, to which succeeds a yellow crust, flabby, and flat, which falls on the fifth or sixth day, and is afterwards renewed several times, or is converted into a deep ulcer, difficult to cure. At this period, there remains an irregular redness,

pretty intense; which is accompanied by hardness in the adjoining cellular tissue,—by a slight swelling of the skin, which at first sensibly increases and afterwards disappears, without leaving on the part the small scales which appear after *true* vaccination, when the areola is dissipated.

It is not very rare to meet in the same patient *true* and *false* infection, each following its accustomed progress. It is particularly in the mode of inoculation by wires that this singular complication has been observed. Among the local symptoms which vaccination may produce, must be placed ulcers, inflammatory erysipelas, indolent and chronic enlargement of the axillary glands; finally, abscesses of the glands. It has been observed that these symptoms, which were common enough at the period when the vaccine matter was transferred from the cow to man, are becoming more and more rare in proportion as that matter is more approximated to human organization.

ICTERUS, OR JAUNDICE

Of new-born children usually appears three or four days after birth. In a great number of cases, perhaps in most, this disease, which is more like ecchymosis in its second period than jaundice properly so called, is produced by a temporary dissociation of the principles of the blood in the sub-epidermic tissues, and, for its speedy cure, requires only some baths and dry frictions. The shocks which the intestinal tube receives in this case by the employment of emetics and saline purges, produce no injurious effect, by reason of the absence of phlegmasia of the mucous membrane of those viscera; the affection even seems to grow well under their influence; hence the praises long lavished on this mode of treatment.

But there is another kind of *icterus* which approximates more to that of adults, and which, like the latter, arises from an alteration of the organs which secrete* the bile; and, as M.

* I use the word "secrete," because it is the language generally adopted, and therefore best understood; though in

Andral has well observed, the obstruction of the biliary canals is the only pathological circumstance the existence of which necessarily brings on jaundice; then abscesses of the liver, the presence of anomalous tumours in its tissue, the inflammatory state of its parenchyma, &c., may coincide with the yellow colour of the skin, which, by reason of the different nature of the affections which produce it, cannot be treated by one and the same method. The biliary calculi which are pretty frequently found in the adult, and which are sometimes the cause of the stoppage of the ductus choledochus, are at least a very uncommon cause of jaundice in infants, since Haller and Morgagni, who have dissected an immense number of bodies, never met with any in the gall bladder of children.

Finally, there is another cause of *icterus*, of which mention has been made only during the last few years, and which, although common enough, is much less so than is thought by Broussais, who was the first to direct the at-

a paper which I published in the Lancet of August 7th, 1841, I endeavour to prove that the bile is an *excretion* and not a *secretion*.

tention of physicians to it. I mean the inflammation, whether acute or chronic, of the duodenum, which is propagated to the biliary organs; this ought, at least, to render us very circumspect in giving stimulating food which a blind ignorance too often lavishes on young children, and in administering food or medicine of an irritating nature.

APHTHA OR THRUSH.

As a distinctive and special character, the mucous membranes offer in their texture a prodigious quantity of little utricles, the opening of which is expanded at their surface; the office of these little bodies is to secrete mucus, and they have received the name of mucous follicles or crypts. They are the seat of the disease so common, and often so serious in children, called *aphtha* or *thrush.* The inflammation of the mucous crypts alters the fluid which they secrete, an effect which it produces in a manner more or less sensible on all the parts of the organization which have a secretory

there will remain to it only the faculty of acting on the muscles, a power which it then exerts in a manner often astonishing by the force which they acquire. Already, by a species of foresight, Tissot, a judicious and circumspect observer, had remarked that the retention of meconium, acridity, teething, and worms, were the four principal causes of the *convulsions of infancy.* Profiting by the labours of his predecessors, M. Broussais first demonstrated clearly the full extent of the office assigned to the digestive canal in most diseases.

ACUTE HYDROCEPHALUS OR DROPSY OF THE BRAIN.

I have before observed the prodigious development of the brain and its dependency in the infant; if we add the no less prodigious activity which it is forced to use in the first years of life, in respect to the innumerable sensations which it must experience, we shall conceive without difficulty, the frequency of the dreadful malady called *acute hydrocephalus,* or

dropsy of the brain, which has been, without reason, said to differ from malignant fever. Here also it is proper to observe the close sympathies which, in the state of health as well as in that of disease, connects the cerebral centres with the digestive apparatus; by that means we arrive at the only useful distinction in the treatment of this formidable affection. It may be primitive or secondary, according as the irritation which produces the effusion of serosity into the cerebral ventricles appears first in the encephalon, or is preceded by an acute gastro-enteritis, which proceeds to exercise its sympathies on the nervous apparatus. This disease is of so formidable a character, that proper advice should be had immediately on the slightest suspicion of its existence.

WORMS.

Finally the most common complication of the diseases of infancy, the point of departure of a great number of others, namely *worms*, presents no less a subject than the preceding for profound investigation into several points of its history,

By reason of the extreme susceptibility of the digestive canal, the presence of worms often produces phlegmasiæ, which manifest themselves by infinitely varied symptoms. A fever more or less high then appears, and this is sometimes treated as essential, without considering its cause; at other times,—and this is no less objectionable,—the worms only are the object attended to. In the former case, the child retains, after being apparently cured, a febrile affection which may degenerate into true hectic fever, if the verminous condition continues; in the second, the symptoms are aggravated by giving more activity to the morbid sympathies by the administration of anthelmintics.

EXCORIATIONS AND CHAPS.

Frequently, in the skin of infants, are observed clefts, *excoriations and chaps*, even long before symptoms of teething appear. They may become more or less troublesome, and they have for their cause an excessive fulness or an acrimony of the humours. It is sufficient, to

arrest this, when the skin is red in the parts, where in consequence of the accumulation of fat, two points of its surface are in contact, as at the groins, thighs, hams, neck, &c. to powder it, not with hair powder, as was formerly recommended, but with rye-flower well roasted, or powder of rotten wood, or magnesia. By removing these substances twice or several times a-day by lotions of cold water, the chaps will be prevented from degenerating into deep ulcers of a bad kind, which have been mentioned by Armstrong, and of which the cure is sometimes very difficult. It will be useful to remark, that the ancients augured well for the future from these eruptions, and from little ulcers of the head, ears, or any other part of the body.

BURNS.

In the *burns* to which children are so frequently victims, it is not always possible to procure aid so speedily as is always desirable and frequently necessary. It is, therefore, useful to say a few words here, in order that

the persons who attend to them may be prepared immediately to arrest their progress, and may not, in their anxiety to be useful, do something injurious. If the burn is slight, without blisters, applications of fresh water renewed every quarter of an hour are sufficient to cure it speedily. When the burn is deep, when it has formed blisters more or less numerous, its whole extent should be covered with a cataplasm of scraped potatoes, renewed every half-hour, in order to keep the burnt part cool for a certain space of time: when the pain has ceased, or is much diminished, other means may be employed to effect the cure. These means are known to all surgeons. Tissot recommends, for the cases in question, to beat up the white of an egg, with two spoonfuls of oil which is not rancid; and he says he has seen such good effects from this remedy for several years, that he now employs no other. Like the preceding, it has the advantage of being every where at hand and of being prepared quickly and easily, which is the more important as burns are the less troublesome the sooner the remedy is applied.

PURULENT OPHTHALMIA.

This is a disease of very frequent occurrence in infants: it shows itself generally about the third day after birth, and is characterised by an apparent weakness, and gumminess of the eyelids, which soon become very much swollen, insomuch that the eye cannot be seen; great intolerance of light, the globe of the eye exceedingly inflamed and painful, and is attended with a thick purulent secretion, sometimes mixed with blood. It is a disease of a very serious and dangerous character, and one which requires the most prompt and energetic treatment. It is supposed by some to be dependant on vaginal secretion, or exposure to a current of air; but in the greater number of cases it may safely be referred to the exposure of the stimulating rays of light or heat, which is effected frequently by the attendant so placing the child, that the light of a candle, or glaring fire, falls directly on the eyes of the infant; and when we take into consideration the extreme delicacy, and susceptibility of the eye of the

new-born infant, and when we recollect the effect on our own eyes by suddenly looking up at the mid-day sun, we may not wonder at intense inflammation being caused by the sudden exposure of an infant to a vivid light. Before speaking of the treatment of this most fearful disease, which produces more blindness than any other cause, I must most strenuously oppose that stupid useless practice of washing the child's eyes with the mother's milk, as being not only useless, but absolutely pernicious.

This complaint is treated very differently by surgeons: some using leeches, warm fomentations, &c.; others again having recourse to astringent lotions. As far as my experience goes, and I have treated most successfully a vast number, I certainly consider bloodletting and warm applications, the very worst practice that can be adopted. When first discovered, the parent should have a poultice of fuller's earth applied to the eyes, and in the mean time hand the case over to their medical attendant; but the grand secret in the cure of this affection is to freely make use of a syringe, whatever the collyrium may be; it should always be used by

means of this instrument; independently of the medical remedial measures, the eyes should be washed out eight or ten times a-day by means of the syringe, in order to remove all the purulent matter, which otherwise becomes inspissated, and ultimately organized, and forms an adventitious membrane over the eye, thus producing specks, and loss of vision.

CONTUSIONS AND BRUISES

Are accidents frequent with infants. When they are not very severe, and when there is no wound, bandages moistened with vinegar and renewed hourly, cataplasms of parsley, chervi or wild artichokes pounded, are most proper to apply before the arrival of the surgeon. The indiscriminate use of spirits, whether administered internally or applied externally, are equally injurious in these cases.

If the contusion is more severe, the contused part should, if practicable, be kept for several hours in a cold bath holding in solution a small quantity of salt; and the only drink

should be cold water, with the addition of a spoonful of syrup of gum, marshmallows, or orange flowers. When the bruise is in any part of the body where the bones are near the skin, as in the head or leg, there appears almost immediately a tumour more or less considerable, whose dispersal may be accelerated, and the pain eased, by pressing the wounded part with a bandage.

SHINGLES.

This is a species of Erysipelatous inflammation, which attacks the trunk of the body, and forms a belt of watery vesicles partially round the waist, just above the navel; it most commonly takes place on one side of the trunk only, but sometimes extends completely round, in which case, people labour under the erroneous impression, that it is incurable; at other times a batch of these vesicles make their appearance under the blade-bone of the shoulder, extending down the arm. In children it is commonly a very mild disease, and attended with no danger, requiring simply a little aperient medicine;

but, generally, in adults (as is also sometimes the case with children,) it is accompanied by considerable functional derangement of the liver and stomach, and then requires such remedies as are adapted to restore their healthy action.

CYNANCHE, OR SORE THROAT,

Is of different kinds,—each indicated by the particular part affected, and as all the varieties are more or less prevalent, as well amongst adults as children, I purpose giving a short notice of each, beginning with the least noxious in its effects upon the human frame, then taking the next in importance, until we come to that most serious disease, *the Croup*, which will require more attention than it has been thought necessary to bestow upon some other complaints.

THE MUMPS

Is a disease of common occurrence, mostly attacking children; generally epidemical, and decidedly infectious. It is first indicated by a

feverish condition of the child; it becomes restless, and uneasy; soon slight swellings take place, just behind and below the ears, extending down the neck; these swellings increase until about the fourth day, and then as gradually decrease, and the child returns to its wonted health; generally the disease is so mild in its character, as to require little or no attention, with the exception of administering a gently aperient medicine, and maintaining the patient in an even temperature; but at other times it takes a more serious turn. I have seen fatal effects ensue, and must confess that I think writers have treated it with too little attention: thus, sometimes the inflammation becomes so great, that suppuration occurs, which should be evacuated by means of the lancet as early as possible, otherwise it may burst internally, and thus cause great deformity, or even a fatal termination; at other times the glands will so enlarge, that suffocation follows. When the swellings are very hard, and immoveable—when the fever runs high, or delirium takes place—when they recede rather than increase before the fourth day, then the case becomes too

critical for a mother's management, and she should immediately avail herself of medical aid; but in the meantime she may apply warm fomentation of poppies and chamomile flowers, and poultices made of the same. On the other hand, if the case be mild, and there be but little fever, the patient running about tolerably well, the parent need labour under no anxiety, but may occasionally administer a cooling opening powder, and allow the disease to take its course.

INFLAMMATION OF THE TONSILS, OR COMMON SORE THROAT.

This, like many other diseases, may assume a mild or a more formidable character; it generally arises from exposure to cold when warm, or from suppressed perspiration. The patient experiences cold chills, feverishness, headache, aching of the small of the back, and legs, thirst, and great soreness and difficulty in swallowing even liquids, the tonsils being inflamed and enlarged. The patient

may, under these circumstances, begin with a dose of salts and senna, which may be repeated twice, and even three times, until the bowels are freely acted upon; maintain an equal temperature, low diet, such as gruel, &c., gargling the throat with warm vinegar and water, in equal proportions; inhaling the steam of boiling vinegar by means of the spout of a teapot; and, after well fomenting the outside of the throat with decoction of poppies and chamomile, apply a mustard poultice outside, made thus,—simply mix about a teaspoonful and a half of the best mustard in a common bread-and-water poultice: this may be kept on and endured all night without much inconvenience or pain.

To the foregoing directions may be added the immersion of the feet in hot water on going to bed. By these aids the patient will generally find in the morning, that the progress of the disease is checked: this treatment requires to be persevered in, and even the application of a blister to the throat may be necessary. Sometimes the inflammation assumes so determined a character, as to demand either the abstraction of blood from the arm, or by means

of a few leeches: at other times the tonsils gather, and require lancing; but as these observations are written with a view of preventing formidable diseases arising from little circumstances, it cannot be expected that I should recommend persons to exercise their own discretion when the complaint partakes of a serious nature, inasmuch as it requires a good deal of discrimination to know, in this stage, whether it is merely inflammatory sore throat, or whether it is likely to assume a malignant or putrid character, in which latter case, the very reverse treatment must be observed, and blood-letting would be the means of promoting a fatal crisis. Medical aid must be sought.

MALIGNANT, OR PUTRID SORE THROAT.

This disease is generally epidemic, and infectious, and though it attacks every constitution exposed to its infection, it most commonly seizes persons of a weak and debilitated habit, and is far too formidable for domestic treatment, but it may be as well for the mother to be able

to distinguish a few of the leading characteristics, in order to avoid error. It is ushered in by the same train of symptoms as the last-named affection, only that these are all more aggravated; the fever is much more intense; stiffness is felt in the neck, hoarseness in the voice, but deglutition is seldom difficult or painful, (and this is a distinguishing feature from common sore throat:) at the same time there exists a great prostration of strength, and a countenance expressive of care and anxiety, such as, to an observer, cannot be mistaken. The interior of the mouth and throat present not a lively florid inflammation, but one of a dark, dull kind of a purplish red, interspersed with spots of an ashy pale and livid colour, which speedily slough and fall off, an acrid thin humour running from the nose and mouth, excoriating the lips and adjacent parts; often purging comes on, especially with infants, efflorescence of the skin, and delirium. These are evidences of extreme debility, in fact the fever becomes typhoid, and requires the reverse treatment of that of inflammatory sore throat. The most that I would recommend in

the form of self treatment, until medical aid can be procured, would be the administration of an emetic, gargling the throat with warm port wine, and, if practicable, slightly smearing the roof and back part of the mouth with lunar caustic. The strength must be sustained from the first by strong beef-tea, or mutton broth with sago boiled in it. But the treatment ought to be left in the hands of an experienced medical man, and I only enumerate the symptoms in order to enable persons to form some idea of the serious nature of it, feeling convinced, that if people were better acquainted with the leading features of disease, it would be the means of preventing their often falling into a too fatal security.

I had intended to treat of *quinsy of the larynx* as a separate disease: but upon consideration I think it unnecessary; for though writers have thought proper to class it as a distinct complaint, I can see no sufficient reason for so doing.

The larynx is the upper portion of the windpipe which terminates in the trachea; this

divides into branches, under the name of bronchial tubes, and these divide, and sub-divide in the lungs, like the branches of a tree. The whole, from the pharynx to the air-cells of the lungs, being in truth nothing but *the wind-pipe*, and its ramifications; this tube is lined by a membrane called the mucous membrane, and is the seat of one of the most direful maladies incidental to human nature, viz.

THE CROUP.

This is one of the most awfully serious, and insidious diseases, with which we are acquainted. In the first instance the child appears poorly, languid, and unwilling to amuse itself; presently it becomes restless, and symptoms of common cold present themselves, but so slight in their character as to excite no alarm; then dry cough, and hoarseness supervene, yet causing no suspicion, until the increasing difficulty of breathing assumes somewhat the appearance of asthma; then, and not till then, the parent becomes fearfully alive to the

extreme danger of the child, and sends for a medical man; but alas! how often too late! I would strenuously advise parents, *in every case of hoarseness or difficulty of breathing, especially when that appears to arise from the throat* to send instantly to their medical adviser. If happily their fears should be unfounded, it is well; little harm is done: if, on the contrary, the disease be really croup, they will have the satisfaction of knowing, that their promptitude has been the means of saving the life of their child.

The croup has been divided by some writers, into Spasmodic and Inflammatory; but this distinction is not only erroneous, but absolutely pernicious, inasmuch as it often leads to a treatment less active than the urgency of the case demands. Croup is essentially an inflammatory affection of the mucous membrane which lines the whole of the windpipe, and, frequently extending into the air-tubes of the lungs, implicates them in the mischief. Children are peculiarly subject to this disease; and though it is chiefly confined to them, grown persons are not exempt from liability to it. The inflammation in croup appears to be of a

very singular character; for if it partook of the same nature as is met with in common, we might naturally look for the adventitious deposit in each instance, which we do not find. It generally prevails epidemically, but is not considered contagious. A day or two before the attack, the child appears drowsy, fretful, and restless; the eyes are suffused, and heavy; then a cough comes on, but this is never very great, violent, or troublesome, but is accompanied by a peculiar shrill sound in the throat, which is said to resemble the crowing of a cock; gradually all these symptoms increase, a great anxiety of countenance is manifest; respiration becomes sensibly more difficult, until at last the fatal termination is produced either by spasm or suffocation. Exposure to cold appears to be the immediate cause; hence we find it more prevalent in winter, and spring, especially about March, when the wind is bleak and piercing, than at other seasons of the year, and more on the sea-coast than in inland situations. The difficulty of breathing arises from an exudation upon the inflamed membrane lining the windpipe; this becoming inspissated, ultimately

forms an adventitious membrane, which increasing, insidiously lessens its calibre until there remains no room to breathe through, and thus suffocation is produced. This being the result of neglected inflammation, the first indication is to use the most energetic means to subdue it, or in case of the false membrane having been already formed, to effect its removal, by detaching it, or by absorption.

The first care is to subdue the inflammation as speedily as possible, by means of bleeding in the arm or jugular vein if the child is old enough, or by the application of leeches to the throat if the infant be too young for that operation; a child under three months may have two; one from six to twelve months, four or six leeches, according to the apparent constitution of the patient; an emetic may then be administered, about half a teaspoonful of antimonial wine, to be repeated every ten minutes until free vomiting is induced; after this an opening powder consisting of two grains of calomel and four of jalap for an age between six and twelve months, and about a third less for one under six; this should be immediately

followed by a warm bath, fever mixture every three or four hours, and the constant application of warm bran poultices to the throat and upper part of the chest. All these remedies must be modified, or repeated according to the discretion of the nurse, and are the means to be adopted in the first stage of the disease. But when the adventitious membrane has already become deposited in the windpipe, a still more active treatment must be had recourse to. The object to be kept in view in this stage, is to effect its removal, or its absorption. The first has been done by full and free vomiting, by which it has been thrown up. The safest way is to mix about sixty grains of powdered ipecacuanha in three tablespoonfuls of water, and giving one or two teaspoonfuls every ten minutes until the object is attained; after having vomited freely, the emetic must be suspended, but it may be repeated about every three or four hours. But whilst this is being done, it is not proper to neglect the means of exciting absorption, which is best effected by the administration of *two grains of calomel every two hours;* and I must warn

parents not to be afraid of using this potent expedient, and in the dose here named, for desperate diseases require *potent* remedies; in addition to this, a mixture composed of sixty drops of liquor of potash in three tablespoonfuls of milk, which may be given in doses of about one or two teaspoonfuls every three or four hours. If one or other of these remedies do not produce the desired result, the child will, in all probability, be relieved from its sufferings in the course, generally, of forty-eight hours.

To recapitulate the treatment; first, leeches, then an emetic, an opening powder, warm bath, and fever mixture; afterwards calomel every two hours, and the above mixture. In order to afford time for the action of the remedies, an operation is sometimes had recourse to, which consists of opening the windpipe, and by introducing a silver tube, effect respiration below the seat of the disease.

SCARLET FEVER.

This disease takes its name from the color of the skin: it is an inflammatory fever, and is divided into two kinds, the simple and malignant. In its simple form, the child complains of general restlessness, sore throat, cold chills, becomes feverish, thirsty, and languid; about the third or fourth day, the face is a little swelled, and a scarlet redness covers the whole skin, which in about four days, goes off in furfuraceous scales. The disease attacks persons of every age, but most frequently children: it takes place at all seasons of the year, though chiefly in the autumn; and is decidedly infectious. Sudden change from heat to cold, exposure to wet weather, and disordered stomach, are predisposing causes, rendering the system more ready to receive infection. It resembles measles in some respects, but there are certain characteristic symptoms peculiar to each, by which they may be distinguished:—thus we have *sore throat in scarlet fever*, but *not* in *measles;* whilst in the latter

there is a great *weakness of the eyes, and running of the nose, with sneezing, and a cough,* which is not the case with the former. Scarlet fever sometimes terminates in dropsy, but when mild, requires simply a little opening and fever medicine, with cooling drinks, such as lemonade, toast and water, &c.; the child should be kept cool, and when the skin is very hot, may be sponged all over with cold vinegar and water. When it assumes the malignant from, it becomes a very important disease, and requires much attention and active treatment. In this kind the symptoms are nearly allied to those of *malignant sore throat,* indeed some practitioners consider them the same disease, and most assuredly they require the same care and caution in their treatment.

MEASLES.

Unfortunately for the future health and happiness of children, this disease is often treated as if of little moment, some persons contenting themselves by administering a little

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syrup of saffron (which does neither good nor harm) and giving no medicine, or perhaps a little when the eruption has gone off; yet I know of no complaint requiring stricter watching, nor one which leaves more baneful effects behind. Sometimes the patient is ill for several weeks with a very distressing cough, which is often mistaken for whooping cough, without any other symptoms which would lead one to suspect the real nature of it, and more especially when there is no measles in the neighbourhood. It is an inflammatory infectious fever, chiefly attacking children; it is attended with all the symptoms of common cold, sneezing, running at the eyes, which are exceedingly weak, and a most *distressing cough;* the eruption generally comes on about the second day after the above symptoms have become fully developed, but unlike the bright redness of scarlet fever; its color is darker, more like a strawberry color, and has the appearance of being scolloped. In about four or five days it terminates in a scaly desquamation. As the eruption goes off, the febrile symptoms and cough increase, together with difficulty of

breathing, hoarseness, the discharge of humour from the eyes becomes aggravated, and it not unfrequently terminates in *inflammation of the lungs*. When this ensues, it becomes necessary to proceed as though the inflammation was a separate disease — by the application of leeches, blister, aperient fever medicine, warm baths, &c.

NETTLE RASH.

This is a very disagreeable, rather than dangerous disease. The symptoms are fever, restlessness, an eruption over the body, precisely as though the person had been beaten by the stinging nettle; in some, the rash is very small, pervading the whole body, whilst in others it assumes large wheals or bumps. I have seen them as large as a hen's egg; they present a hard white swelling surrounded by inflammation; the itching is intolerable, and more so at night, or when in bed, than in the morning, when indeed it often apparently ceases. It is said to arise from various causes, such as sup-

pressed perspiration, drinking cold liquids when in a heated state, eating shell-fish, such as crabs, lobsters, muscles in particular, and animal and vegetable poisons. When once a person has been attacked with this most tiresome complaint, he is peculiarly liable to a recurrence of it; and some are so susceptible after a first affection, that even a small piece of plum-cake will produce the disease. It ceases frequently in a few days, but on the other hand it sometimes lasts for months, baffling the most skilfully suggested remedies. If irritating matter in the stomach be the cause, the proper treatment will be an emetic, and afterwards opening medicine; if suppressed perspiration, then medicines to promote the secretion of the skin; a frequent cause, is acidity and an acrid condition of the humours of the stomach, in which case, alkalies in combination with aperients are proper, such as Epsom salts with magnesia; and indeed these, together with low un-irritating regimen, and cold water as a beverage, will seldom fail to produce a cure.

CHICKEN-POX.

This disease appears to be propagated by infection, is almost peculiar to children, and attacks them only once in their life. The symptoms are—fever, which is generally very moderate in its character; about the second day, an eruption appears on the skin, the vesicles of which are soon filled with a limpid fluid; these as quickly dry, and peel off in dry scales, never becoming matter like that of the small pox; whilst the first vesicles are dying away, fresh ones make their appearance, which in their turn run the same course, and in about four or five days entirely cease, without the child's having experienced much inconvenience. It is a remarkably mild disease, and one demanding no anxiety, little attention, and scarcely any medicine, a mild aperient being all that is required.

SMALL-POX.

This is the most disgusting of eruptive diseases, and becomes serious or not, according as it assumes the simple or confluent character. It is said to have been introduced from Arabia. Even in its simple form, it is a source of considerable anxiety. It is ushered in by fever, thirst, headache, pain in the back and loins, sickness, languor, and restlessness. About the fourth day, small red spots make their appearance on the face, neck, and chest, which gradually spread all over the body; they have precisely the appearance of flea-bites, but upon examination, a careful observer will notice a very minute *depression in the centre of the spot,* which to me is an unerring sign of its true character. The spots become pustules and gradually enlarge, and about four days after, appear filled, not with the limpid fluid of chicken pox, but with a yellowish thick matter; around these is an inflammation of an erysipelatous character; the pustules increase until the eleventh day, and then die

away, leaving thick brown scales, which, peeling off, cause an indentation, and a dark redness; the latter remaining for a considerable period, while the former becomes a permanent blemish.

The confluent form is much more aggravated, as well in its symptoms, as in the extent of the eruption; it is preceded by more formidable signs; thus, the fever is considerably more severe, the headache much more intense, and a fit is frequently a precursory symptom; the pustules are far more numerous, and run one into the other, insomuch that, often, no feature of the face can be discerned; the head, face, and eyelids being so swollen, that the latter cannot be opened. There is often a putrid tendency, and the fever assumes a typhoid character; the pustules are filled with bloody water, and purple spots are interspersed among them; a viscid thick secretion from the glands of the mouth and throat follows, terminating, frequently, in a violent purging.

Distinct small-pox is not a very dangerous disease, unless the fever is very urgent: the subsidence of the fever, the swelling of the

face, hands, and body, absence of delirium, the eruption gradually increasing in size, until its termination, are considered favourable signs; but when the fever is excessive, delirium urgent, convulsions, great prostration of strength, pale visage, pustules sinking, and becoming purple, anxiety, faintings, cold chills, followed by purging, we have fearful grounds for anticipating a fatal termination; and when this happens, it is mostly between the eighth and eleventh day, but sometimes as late as the fourteenth. Each kind, but especially the confluent, leaves a predisposition to other diseases of an inflammatory nature, especially ophthalmia, and inflammation of the lungs, and it not unfrequently developes scrofula, which might otherwise have lain dormant.

In no disease has a more salutary revolution been effected, than in the treatment of this complaint. Formerly the patient was kept preternaturally warm; blankets heaped upon the bed; the windows and doors carefully closed; all beverage was given warm, and even brandy-and-water was considered an essential agent. Now, the contrary of this is found to be the

most judicious and rational treatment. The room should be well ventilated by throwing open the windows and doors, the bed-clothes very light, and cooling, refreshing drinks administered, fever medicines, occasionally a clyster or very mild aperient medicine; but in the confluent form, too much caution cannot be observed in this particular. When the pustules subside before their time, it is advisable to place the patient in a warm bath, and sometimes to give a little warm white-wine whey, in order to reproduce them on the surface of the body. When it takes on a typhoid appearance—when the humours are viscid and acrid, or purging ensues, cinchona bark will be proper; and when the patient is exceedingly restless, an anodyne, such as will not affect the head, may be admissible. The prevention of the pits or marks which are left after the eruption has gone off, has occupied the attention of our greatest writers. Mercury seems to exercise a marked influence over small-pox; and continental physicians apply a plaster composed of this mineral, over the exposed parts, in order to check the development of the pustule; but it must

be had recourse to almost as soon as the eruption makes its appearance, say about the third day:—others touch each pustule with lunar caustic to effect the same desirable end, but as the pitting is the effect of the pressure of the matter, perhaps the best mode of procedure, is to puncture each, as soon as any fluid is observed in it, and thus evacuate the contents.

CHILBLAINS.

These are very troublesome inflammatory swellings, chiefly affecting those parts which are most exposed to severe cold, such as the fingers; the toes and heels are also particularly liable to them. The parts affected are a purplish red colour, and itch exceedingly, especially when warm, and though the pain is pungent, it is not constant. When the parts have been exposed to a severe degree of cold, they are apt to break, and become ulcers difficult of cure, especially with persons of a scrofulous diathesis. Children and persons advanced in age, are mostly affected by them, consequently

should use precaution to prevent their occurrence, by putting on extra clothing, as gloves on the hands. Many applications have been recommended for their cure, such as liniments composed of spirits of camphor and turpentine in equal parts, or alone; or spirits of rosemary; but the one which I have found to be most efficacious, is, nitric acid one part, water four parts, mixed, and applied by means of a feather to the chilblain, constantly bathing it, until a pricking, smarting sensation is produced; then cease, and repeat it in about four hours. When they break and form ulcers, they may be treated by simple dressing, unless proud flesh arises, in which case, lunar caustic must be gently applied to the surface.

RINGWORM.

This disease generally affects children, but adults are, without care, equally liable to inoculation. It most commonly commences on the head, and has the appearance of many pimples forming a ring, varying in size, from

a fourpenny piece to a shilling: these contain a thin acrid fluid, which being scratched, oozes out and thus contaminating other parts, is propagated all over the head, and sometimes, even, the body; but this latter circumstance arises from the system itself partaking of the infection, and requires an alterative course of medicine for its eradication. Too much caution cannot be exercised, in using the same comb; indeed, it should always be washed before using it a second time, and should never be applied to another child, as that is a prolific source of communication. The best mode of cure, is to shave the head, or the part affected, then have an ointment prepared of red precipitate, ten grains, two drachms of nitrate of mercury ointment, and an equal quantity of lard: let this be rubbed briskly on the ringworm, every night on going to bed; in the morning it should be washed off by means of a lather of almond or castile soap; the ointment is not again to be applied till night, but a clean cap should be put on, which must not be used a second time without washing; should this not succeed, a lotion as well as the ointment may be used fre-

quently during the day, composed of sulphate of copper four grains, distilled water one ounce. In case these fail to effect a cure, let each ringworm be rubbed with lunar caustic, which will never fail to produce the desired object; but this remedy demands caution in its application, for if used too freely, it will cause the destruction of the skin and make a wound; the caustic should be wetted, and merely stroked over the part about three times, and then left to itself for several days, until the skin wears off.

SCROFULA OF THE MESENTERIC GLANDS.

These are a conglobate class of glands, situated in the abdomen, whose office is to conduct the nutritious fluid, the result of digestion, to a duct destined to convey it to the heart for general circulation. These glands, especially with children, are frequently the seat of scrofulous enlargement, whereby their proper function is considerably impaired. The child has a most voracious appetite, and yet the limbs continue to waste; the belly is large, hard, and

exceedingly tender upon pressure; the bowels irregular in their function, sometimes costive, and at others relaxed, without any assignable cause. It is an evidence of general disorder and debility of the system, and becomes developed, mostly, from disease of the secreting glands of the intestines, excited by irritating food.

Children suffering from a tendency to this disease, are frequently found eating substances the most pernicious, such as orange peel, raw carrots, turnips, &c. They require a regular course of alterative medicine, such as mercury with chalk two grains, rhubarb, three grains, and dried subcarbonate of soda two grains in a powder, to be taken, every night, omitting the mercury occasionally; followed in the morning by a mild aperient dose, such as castor oil; exercise, fresh air, and generous light diet, animal food being preferable to vegetable, broth with a little wine in it, arrow-root, and bread and milk. Care must be observed lest this disease be mistaken for worms.

CONVULSIONS

Are violent spasmodic affections, which depend upon functional derangement of the nervous system, and are generally symptomatic of some other disease; thus, small-pox, measles, &c. often induce them; but the most immediate causes may be referred to dentition, irritating indigestible food, acrid matter in the bowels, worms, and mental emotion.

Dentition is a very prolific source of irritation, causing convulsions, and requires speedy and active treatment, and above all the use of the gum lancet. See ante, page 150.

Dr. Marshall Hall, in treating of this subject, says: —

"I have long regarded the process of dentition as not very dissimilar from a state of *sub*-inflammation. I have therefore prescribed the gum-lancet, not only in cases of actual dentition, but in cases in which I did not immediately expect the eruption of teeth through the gum, and even in cases in which *all* the teeth had already appeared. From the same motive I

have prescribed scarification of the gums within and without the highest or lowest border of the gums, or the lines along which the teeth make their appearance.

"I have prescribed the use of this remedy, in a word, to correct a state of the blood-vessels and nerves which, though physiological, borders on a pathological character. I have prescribed it to be used daily.* I have been satisfied with nothing short of the subjugation of the excessive action and fulness of the vessels, and of the disappearance of morbid actions, chiefly of a nervous character, in distant parts.

"I have thought it right to continue the remedy, even when these effects have been produced, knowing, by painful experience, how apt they are to recur. I have considered that an infant had better have its gums lanced a thousand times unnecessarily even, than be subject to *one* convulsive attack."

Mothers have, indeed, often told me, that the gums have been lanced without producing any alleviation of the symptoms; but this I appre-

* In a recent case, Dr. M. Hall ordered the gums to be lanced twice a-day.

hend has been the result of not dividing the *capsule* of the tooth. When two or three teeth are evidently the source of irritation, it is not sufficient to simply lance the gums, but the capsule of each tooth must be completely cut through, otherwise the irritation will continue as before.

The next step in the treatment, consists in placing the child in a warm bath; the application of a few leeches to the head, is frequently advisable, and the best place for them is immediately behind the *ears*.*

Whilst a nurse holds the child's head over a basin, several teacupfuls of *cold* water should be poured over it, about every two hours; afterwards constantly applying, by means of folded linen, a lotion, composed of spirits of wine and water, in the proportion of one to six; the bowels should also be freely acted upon by some non-irritating aperient medicine.

Irritating indigestible food must be avoided,

* In epileptic convulsions of adults, or good-sized children, when leeching is considered necessary, I have found the application of one up each nostril, the best part to afford quick relief.

and if the usual diet to which the child has been used renders it uncomfortable after a meal, it should be changed for some other more appropriate, and at the same time it ought to be administered in lesser quantities. If the child is not weaned, and the mother's milk is of a healthy character, let it be the only food; but should there be reason to suspect that the milk does not agree with the child, it will then be advisable to have recourse immediately to another nurse.

Acrid matter in the bowels. When this is the cause of the convulsions, it will be necessary to administer medicines adapted to restore them to a healthy condition; this is best effected by means of small doses of calomel in combination with rhubarb, or two or three grains of mercury with chalk at bed-time, followed in the morning by a dose of manna and infusion of rhubarb.

Worms—Require more drastic purgatives, but it behoves us to exercise a good share of caution in their administration, for it may happen, that the means of cure might have the effect of aggravating the convulsions. Calomel with scammony and powdered senna, may be cautiously prescribed, but it would not be advisable to follow up the doses; infusion of

pink root, is also useful. With adults or children of advanced age, castor oil and turpentine is an excellent remedy.*

Mental emotion.—In children, mental irritation is a frequent cause of convulsion; the slightest alarm often produces the most formidable disease; and frightening children should be most studiously avoided.

It is much to be feared, that nurses dress up images, &c. with a view of making their little charge go to sleep, much more frequently than is suspected; and it is equally to be regretted that the same is too often had recourse to, with the laudable though mistaken notion of amusing them. See ante, page 93. In conclusion I may remark, that frequent change of air and scene, especially in convulsions arising from mental emotion, should never be neglected; the sea breeze exercises a very beneficial influence on them, but at the same time all exposure to the keen north or north-easterly winds ought to be carefully guarded against.

* It is as well to observe that the medicine given to eradicate worms should be administered before breakfast, taking care that the patient abstain from food on the previous evening.

DISEASED HIP-JOINT.

This affection is frequently mistaken for scrofula, and is sometimes complicated with it. I merely mention this disease to put people on their guard, as to its true and serious character, and I would wish to impress upon the mind a leading symptom which often gives a wrong direction to the mother's attention; it is *pain in the knee.* When a child walks somewhat lame, and complains of *pain in the knee,* delay not an hour in seeking the most skilful advice, for unless it is attacked and subdued within two months, I do not believe it can be cured at all. When the patient is of a strumous habit of body, this malady becomes a subject for the most serious consideration; it generally goes on despite of the most energetic remedies, until the hip slips out of joint, which it does by involuntary muscular effort. Then, and not till then, when it appears to have effected its greatest amount of mischief, the progress of the disease becomes arrested in an incomprehensible

manner. The first indication is to subdue the inflammatory stage, and for this purpose, leeches, perfect rest, and evaporating lotions have been recommended; and where it is not complicated with scrofula, it is the proper treatment; but when on the contrary it is so, I must confess that I have never seen any good result from it. I think the more rational way, is to have recourse immediately to those means best calculated to improve the general health; such as sarsaparilla, wine of iron, generous diet, and sea-bathing; besides it is no easy task to keep a child of five years of age, in a recumbent position.

WARTS.

A very general impression is entertained, that, if these excrescences are allowed to bleed, they inoculate other parts, but this is an erroneous notion. Warts are of two kinds, soft and hard; the former are most easily cured: they may be cut off, or the application of mercurial ointment, lunar caustic, or solution

of sugar of lead, will often destroy them. But not so the hard ones; as respects these, the most efficacious mode, according to my experience, is this: let the hands be poulticed for two or three days, until the warts are completely soaked, and then apply (by means of a feather) the strongest nitric acid: care must be taken not to touch any other part. After having allowed the acid to remain on about three minutes, wipe it off, and repeat it immediately, allowing the second application to continue a little longer; then dry, and, in a few days the warts will wear off.

STYES.

These are little suppurating abscesses, forming upon the eyelids; they are very painful and troublesome, and often arise from a defective state of the digestive organs; in which case aperient medicines become requisite. When they take place from mere local irritation, I have found the application of lunar caustic, in the slightest degree, the best means of arresting their progress.

"GOING OUT OF TOWN"—SEA-BATHING.

A few words under this head may perhaps not be out of place in a Medical Guide for Mothers. The annual "going out of town," or "to the sea-side" is considered an event of great moment to the metropolitan. If it causes the heart of the votary of fashion to palpitate for approaching scenes of change and gaiety, so does it also cause that of the invalid mother to flutter with anxiety for the restoration of health to her debilitated frame, or to her sickly children. The very sentence "going into the country" often has a talismanic charm, sufficiently potent to dissipate the gloom of the sick-chamber, and happy should we be could we foster its influence even to the consummation of desired health, by judicious advice and friendly caution.

To those whose lot is cast in the habitual enjoyment of rural scenes, this chapter may be unimportant: yet it is hoped they will pardon the appropriation of a page or two of my work

for the benefit of their less fortunate metropolitan brethren.

It is often jocularly remarked by convalescents seeking renovation in the country or at watering places, that they are "going to bid good-bye to the doctor;"—but it is much to be wished that the number were smaller of those who, after an injudicious use of their opportunity for gaining health, are compelled to return on purpose to seek his aid.

The obvious improvement of the general health effected by a removal from the city to the country, even for a short period, is a matter of daily remark; and the suspension or even cure of various diseases by a removal from one part of the country to another, is an occurrence that must have come within the observation of every one. It may suffice to mention here, in reference to this fact, intermittent fevers, asthma, catarrhal affections, hooping cough, dyspepsia, convulsions, and various nervous disorders. These diseases are often benefited and not unfrequently cured, by simple change of situation after having long resisted medical treatment; or they are found to yield, under the

influence of such a change to remedies which previously made little or no impression upon them.

It would be as well, then, if the leave-taking just alluded to, instead of being treated as a joke, were performed with a little more serious ceremony, and accompanied with the "doctor's" parting advice along with his adieu. To insure the benefit to be derived from the most favourable opportunity of a visit to the country for change of air, urgent symptoms should be removed or alleviated before the patient commences her journey; and she should, moreover, have the nature of her disorder explained to her, and receive a few rules for her observance during her residence in the country. Indeed, the want of attention to these things is one of the chief reasons why so many invalids derive little permanent advantage from their summer tour.

The expedition with which travelling is accomplished leaves little room for discussion as to the most convenient for invalids; any of the usual modes will cause excitement more or less, and perhaps the more expeditious, if not too

roughly performed, should be preferred, as being the least tedious, due care being taken to to ensure personal ease and comfort.

Together with change of scene by removal into the country, the invalid generally incurs a change of every thing but *clothing*. It should be remembered, that, in consequence of the breeze from the sea, the temperature strikes colder on the coast than it does in London, hence it becomes obviously necessary to substitute for the usual clothing, those more suitable to the particular locality; and above all to well protect the feet and chest; and let me here observe, that in speaking of the chest, I do not mean only the *front*, but also the *back*, and though it is not generally known, nevertheless it is a fact, that affections of the chest, are oftener caught through the latter than the former.

With the inevitable change of air—there are the difference of *water*—and all the beverages and culinary preparations dependent thereon—alteration of hours and habitudes—difference in the size of the sleeping chamber—new faces and new society—all tending to produce *excite-*

ment, which may result in pleasurable feelings or perhaps the contrary.

I believe that as much advantage is gained from drinking good pure water, which is one of the best tonics, as from atmospheric agency.

It is frequently observed by patients, that they never leave the house when at home, but that during their stay at a watering-place, they are seldom in doors, and that their children are on the beach all day. This is a lamentable truth. They are walking the coast before breakfast, visiting the springs during the forenoon, and spending the evening at the promenade or concert-room, and this from day to day; thus making a toil of pleasure, and from overfatigue, destroying all prospect of improvement. In fact people think, because they are in the country, that the atmosphere is to do every thing without exercising any judgment or discretion on their own part. No other general rule can be laid down, than that of, as far as possible avoiding violent or sudden changes, or preternatural excitement, and conforming within a little to the usual habits of their

domestic life; and this is applicable to delicate invalids, whether adults or children.

In the new abode, if the opportunity of selection occurs, we hardly need recommend as a most essential point the choice of the most airy and cheerful sleeping apartments.

The diet is the most important subject requiring the attention of dyspeptic invalids. And as the stomach is the organ primarily and principally affected, unless the diet be such as is suited to its morbid condition, the patient will derive little benefit from the change. Every invalid should strictly attend to that line of dietary recommended by their medical adviser, he being the best judge of any peculiarity or indiosyncrasy of constitution; nevertheless, in general terms, it is as well to know that the chief object is to afford the largest amount of nourishment, with the least labour to the digestive organs; and this is best attained by keeping in view certain landmarks, if I may be allowed to use so familiar a term. A broiled underdone mutton chop, and dried toast, with a draught of pure cold spring water is a simple and wholesome repast;

animal food is recommended in preference to vegetables. That young meat is not always more digestible than that of maturer growth; thus, mutton is more suitable than lamb: roasted beef is proper; but pork, veal, and salted beef, are quite the reverse: all kinds of game, and poultry in general, with the exception of seasoned geese, and ducks, are admissible; and fish, such as whiting, soles, eels, flat-fish, plaice when firm, are advisable, whilst codfish, salmon, and all shell-fish should be avoided, with the exception, perhaps, of oysters cooked to the taste of the invalid.

Sometimes subacid fruits, such as oranges, strawberries, rasberries, the juice of ripe pears, of gooseberries and currants may be useful; but nuts, of all descriptions, and fruits containing stones, are mostly hurtful. Though in some cases, a glass of generous wine may be necessary, the non-indulgence in wine or the dessert in general, cannot be too much impressed upon the attention. These remarks apply as well to adults as children; but as respects the latter, it would be well to make more use of bread and milk as a diet, and less of stimulants, as wine, beer, or dessert; ever

bearing in mind that temperance, with active, but moderate exercise, — a cheerful countenance, and appropriate amusement, constitute the best doctor.

BATHING.

It does not always follow, because people go to places abounding in facilities for bathing, that they, of necessity, must indulge in it; on the contrary, it is often decidedly pernicious, and with children in particular, it requires a large share of discrimination to know when it is likely to be useful, or otherwise. Sea-bathing is generally very healthful, provided it agrees with the person, and he does not make a *luxury* only of it. It has the effect of equalising the circulation, and promoting the exhalations of the skin; it is seldom useful unless reaction follows after the immersion: this is known by a comfortable glow of warmth pervading the whole body: it is effected thus;— the sudden plunge into cold water sends the blood from the surface of the body, into the

large deep-seated blood vessels; these in turn make an extraordinary effort to return it to the surface; hence results what is termed reaction. But if, after the bath, the child appears chilly, languid, or complains of headache, it is evident that it does not agree with it, and should not be repeated. Adults, as well as children, ought to have but two immersions, and then should be immediately well dried, by means of a rough towel, and quickly dressed; but as regards the former, they are too apt to remain swimming and luxuriating for half an hour or more, thereby exhausting themselves, and forthwith exclaim, that it does not suit them. When cold baths do not give comfort, the vapour or tepid bath may be tried; and indeed, it is advisable to begin always with the latter. Baths are taken, usually, too often: twice a-week, or at most every other day, is frequently enough, unless, indeed, the peculiarity of the case renders a more free use of them requisite. When children are timid and very much frightened by the water, the bathing should not be persevered in, but merely take them to see others dipped, and thus gradually bring

[illegible]

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them less capable of bearing those ills which every woman must go through; in riper age, imbued with the prejudices and notions inculcated by these parents, they are left to themselves, inexperience being thus superadded to ignorance; and, at those periods when they require most careful attention, namely, during confinement, to the twaddling old gossips, who, from the nature of their vocation, are called nurses,—to whose want of knowledge, many a woman has fallen a victim, and through whom many a sad bereavement has taken place. By a perusal of this work, every mother will be taught the only rational way of rearing her progeny; every husband, the care which it is necessary that he should bestow upon his wife; every nurse, the proper exercise of the duties of her vocation. . . The work is replete with observation; and the author has shown much skill in conveying information in such a manner as not to offend the delicate taste of even the most fastidious female. No maid, or wife, should be without it."—*The Chemist.*

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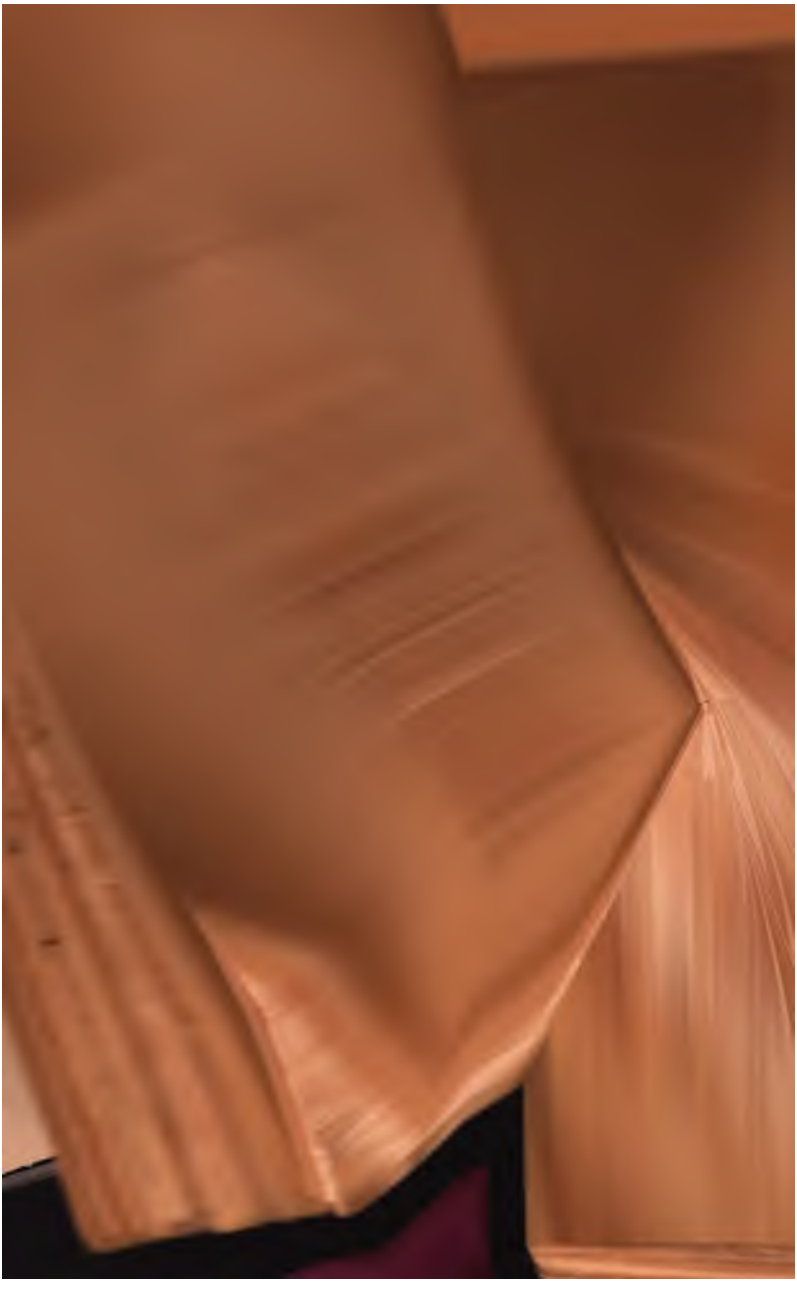

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